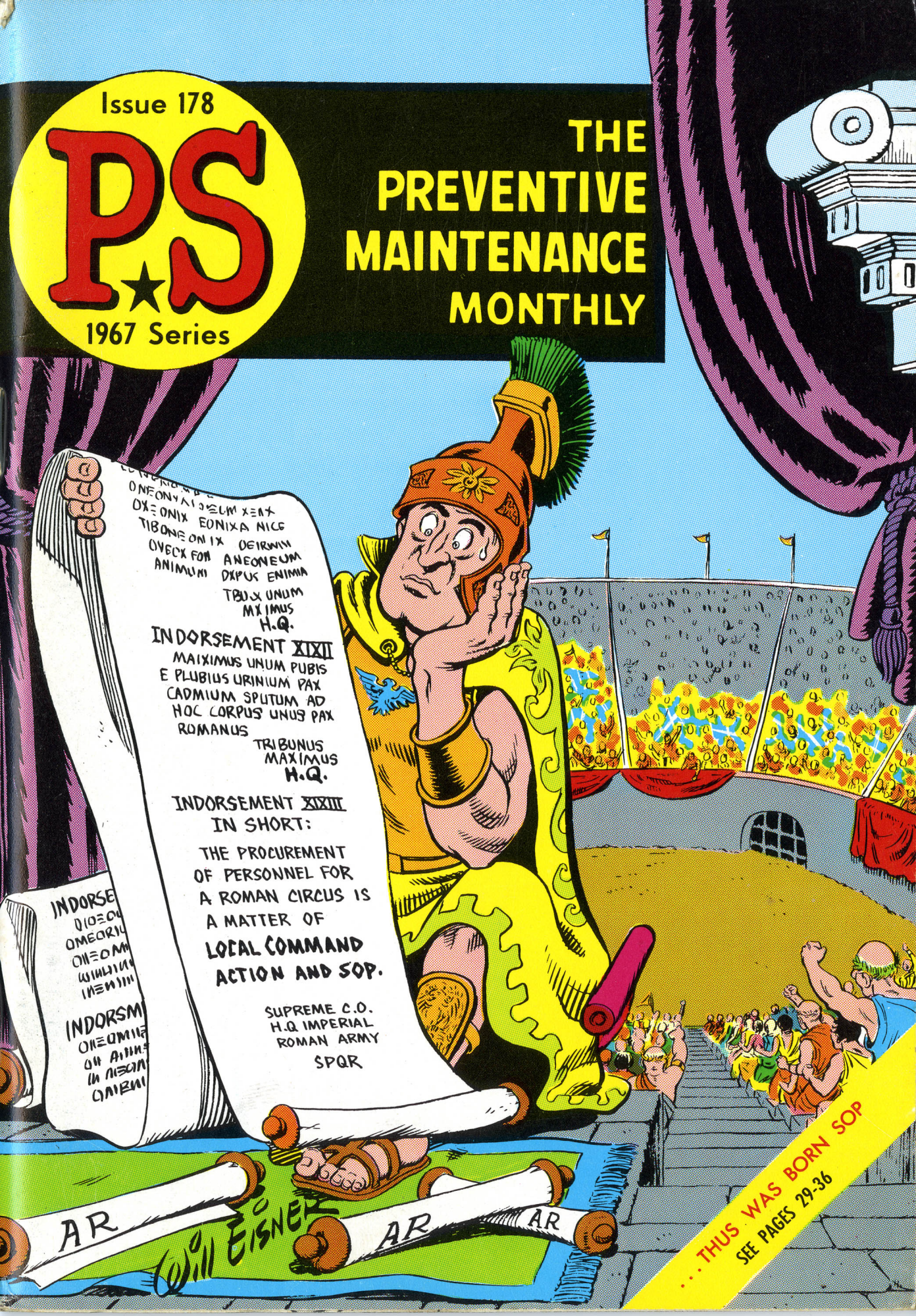
Issue 178
PS
1967 Series
THE PREVENTIVE MAINTENANCE MONTHLY
INDORSEMENT XIXII
MAIXIMUS UNUM PUBIS E PLUBIUS URINIUM PAX CADMIUM SPUTUM AD HOC CORPUS UNUS PAX ROMANUS
TRIBUNUS MAXIMUS H.Q.
INDORSEMENT XIXIII
IN SHORT:
THE PROCUREMENT OF PERSONNEL FOR A ROMAN CIRCUS IS A MATTER OF LOCAL COMMAND ACTION AND SOP.
SUPREME C.O. H.Q IMPERIAL ROMAN ARMY
SPQR
AR
AR
AR
Will Eisner
. . . THUS WAS BORN SOP
SEE PAGES 29-36

MOST IMPORTANT...

You know, of course, that your own outfit has mechanics and specialists who maintain and repair equipment. And back of them are direct support maintenance units, general support units and depots.

But, do you know who does the most important and the most critical maintenance in the whole Army?

WITH MEN WHO KNOW MAINTENANCE BEST—

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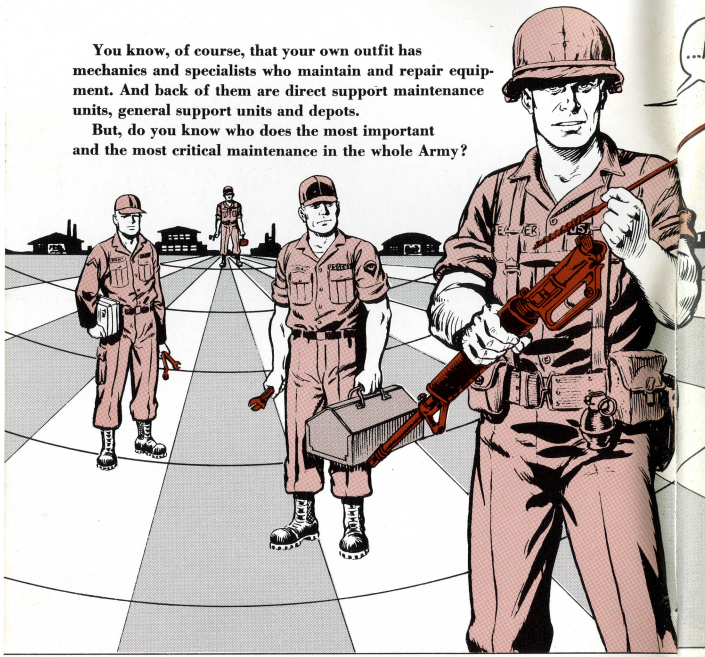

Yes, *you*, the man who drives, operates or uses a piece of Army equipment. Men who know maintenance best, both in the armed forces and in industry, agree on that.

If the man who operates a piece of equipment does his level best to do the preventive maintenance on his equipment and to operate it in the best way possible, then we'd have more equipment ready to go at all times and less equipment down for repair and maintenance.

To do this you check things like oil level, tire pressure, filters, radiator level and loads real often. And make the minor adjustments that your manual calls for.

Operate your gear with great care . . . just like it's your own. Learn the scoop in your operator's manual (-10 TM) . . . know before you go.

Do these things and your equipment will see you through.

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Special Feature
5-Ton Truck 2-28

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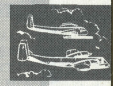
Filter/Separators 38 Beaver Seal 39



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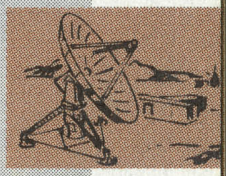

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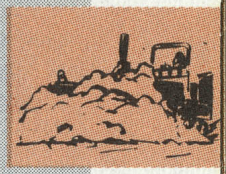

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This list is not meant to be complete. It only covers a typical cargo truck representing the entire G744-series. The differences mentioned here are the front winch installation for this series and those separating

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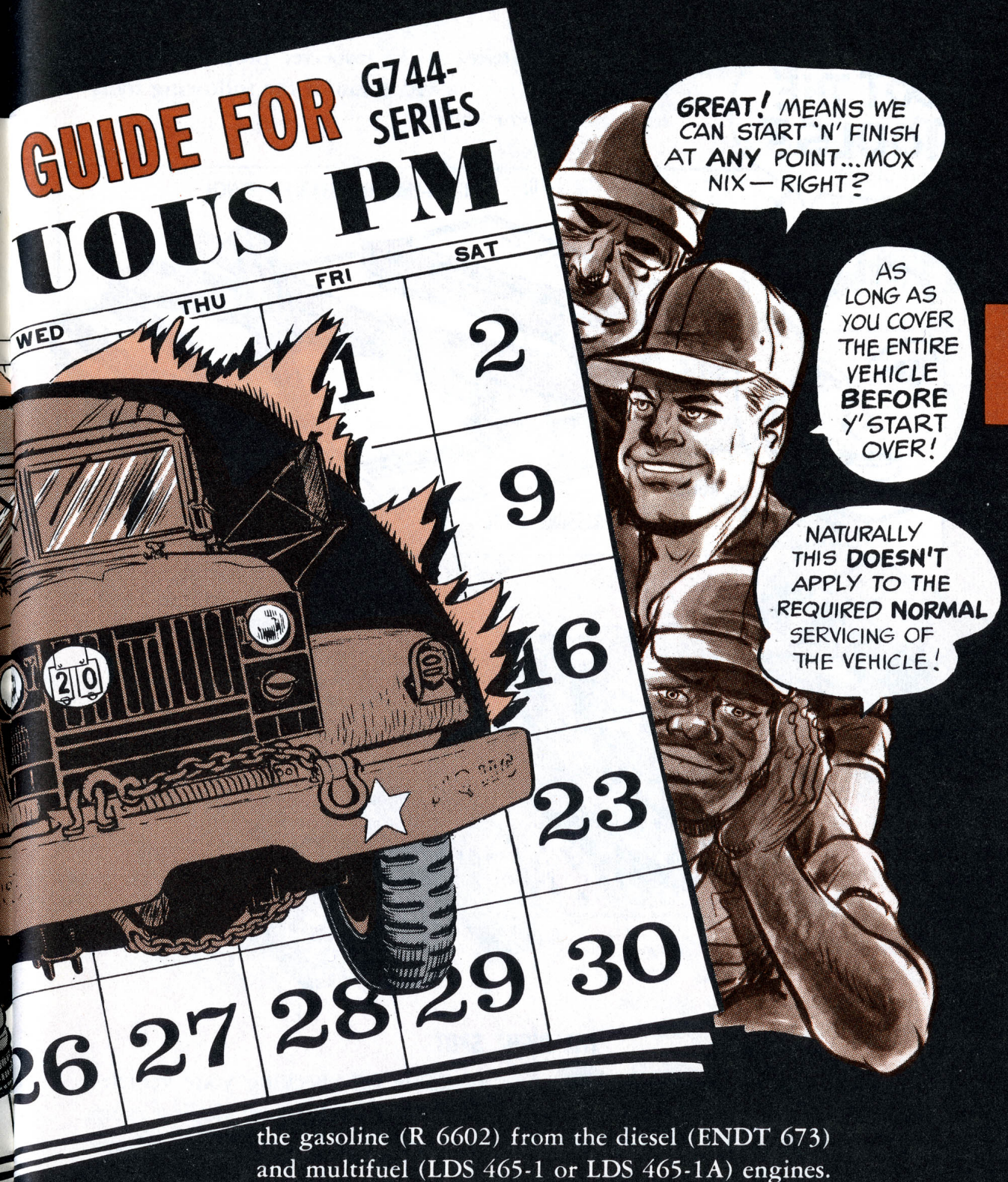
Deficiencies are pointed out here by putting them in **heavy type.** The guide for deciding which faults are deficiencies is DA Pamphlet 750-10 (Jun 66), Command Maintenance Management Inspection Handbook.

MORE



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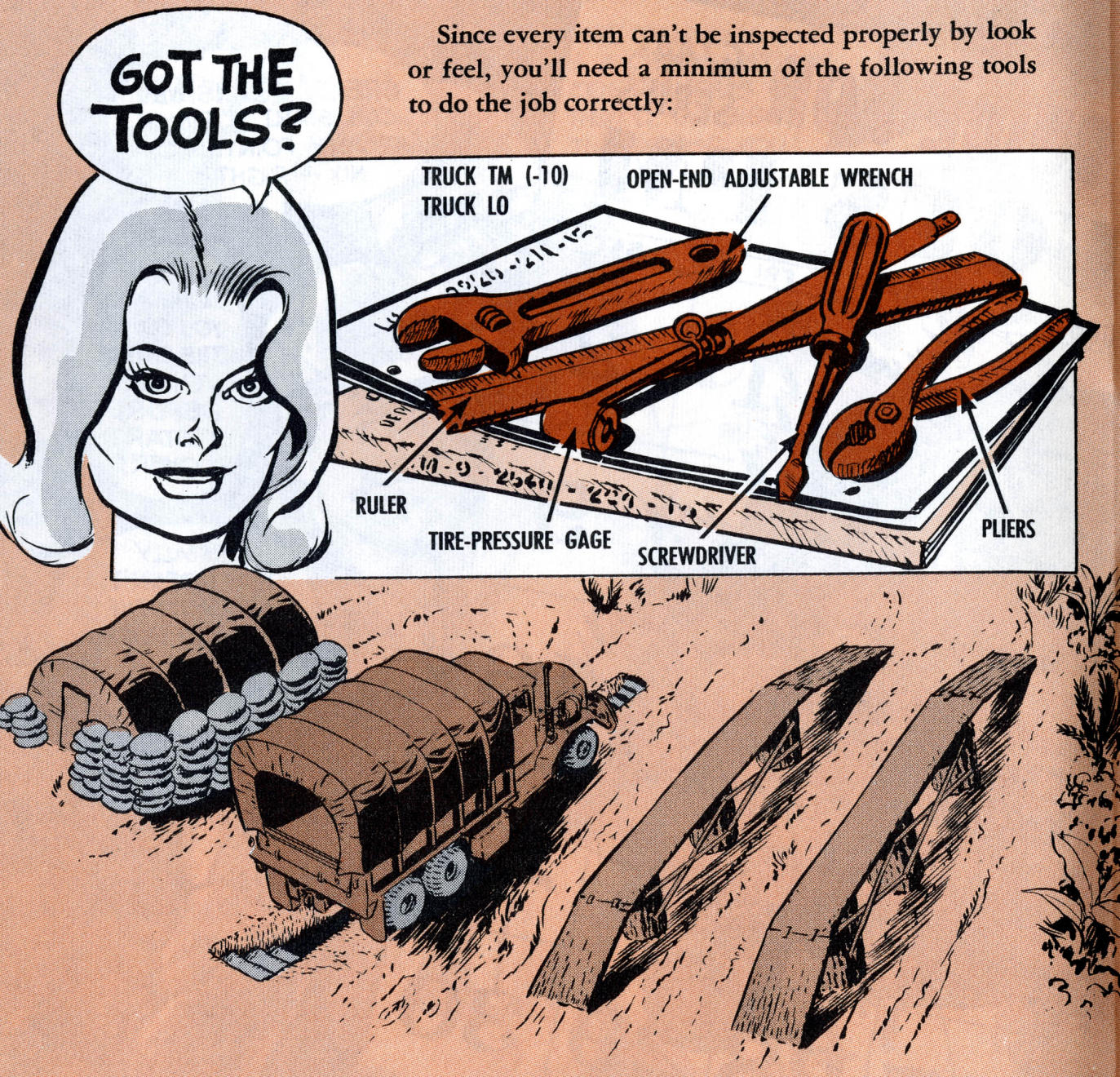

Since every item can't be inspected properly by look or feel, you'll need a minimum of the following tools to do the job correctly:

THE RIGHT SPOT

A wash rack or pit is great when it's available for checking your vehicle's underside . . . or you might even want to use a locally fabricated sloping ramp.

Last, but by no means least, don't forget to ask your favorite unit mechanic any time you're not sure—about anything!

He's also the man to show your DA Form 2404 to, because it's his job to correct the faults you find but can't correct on your own.

And don't get careless . . . roadside spot checks are everywhere. So let's make like we're doing our own spot check right now and see what we can find that needs right-now attention .

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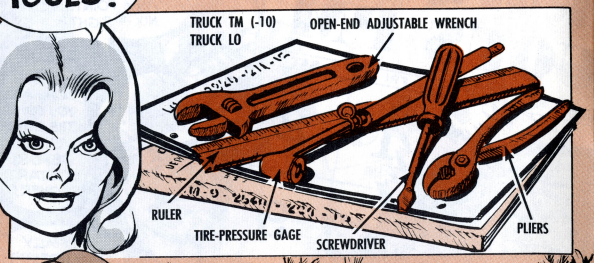

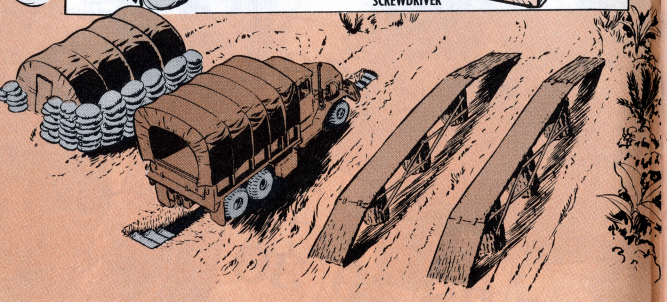

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FRONT

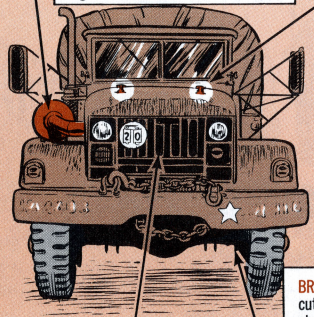
GENERAL VEHICLE APPEARANCE—Dirty, rust spots, body dents, welds pulled loose.

HOOD — Hinges and fasteners missing, broken, bent, rusted (should have thin coat of oil). Cowl cracking at hinges (see TB 750-981-1 (Jan 67), Article 152), National markings **missing,** not readable (local SOP) or wrong (AR 746-5 & TB 746-93-1).

AIR CLEANER (diesel & multifuel)— Loose, cracked.

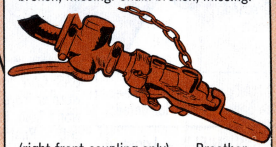
HEADLIGHTS, BLACKOUT LIGHTS & TURN SIGNALS — **Not working,** not adjusted; lenses **cracked, painted over,** clouded, dirty, contain water; blackout shield missing, not in place, **frayed or exposed wire causing short circuit.**

TOP PANEL & WINDSHIELD HOLD DOWN CATCHES — Missing, broken, rusted.



BUMPERS — Badly bent, loose, cracked. Lifting shackles missing, bent, stuck, loose, won't swivel; clevis pin rusted, clip missing. **Unit markings missing,** not readable, wrong.

BRAKE COUPLINGS (2) — Won't work, cutout cock binds; washer missing; stops missing; dummy coupling loose, broken, missing. Chain broken, missing.



(right front coupling only) — Breather **clogged or missing.**

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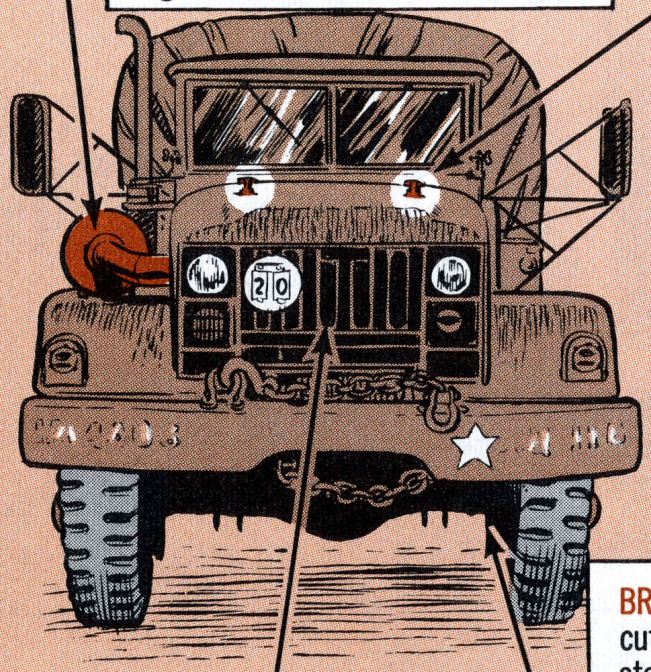

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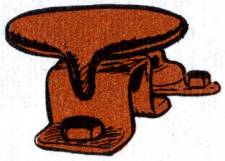

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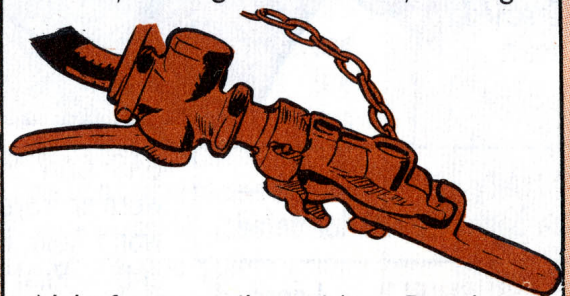

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PS MORE

LEFT

STEERING GEAR MOUNTING BRACKET — **Cracked, broken** (look for hairline cracks around bolts).

STEERING RELAY LEVER BRACKET — **Cracked, broken,** loose, drag links not lubed, dust shields missing.

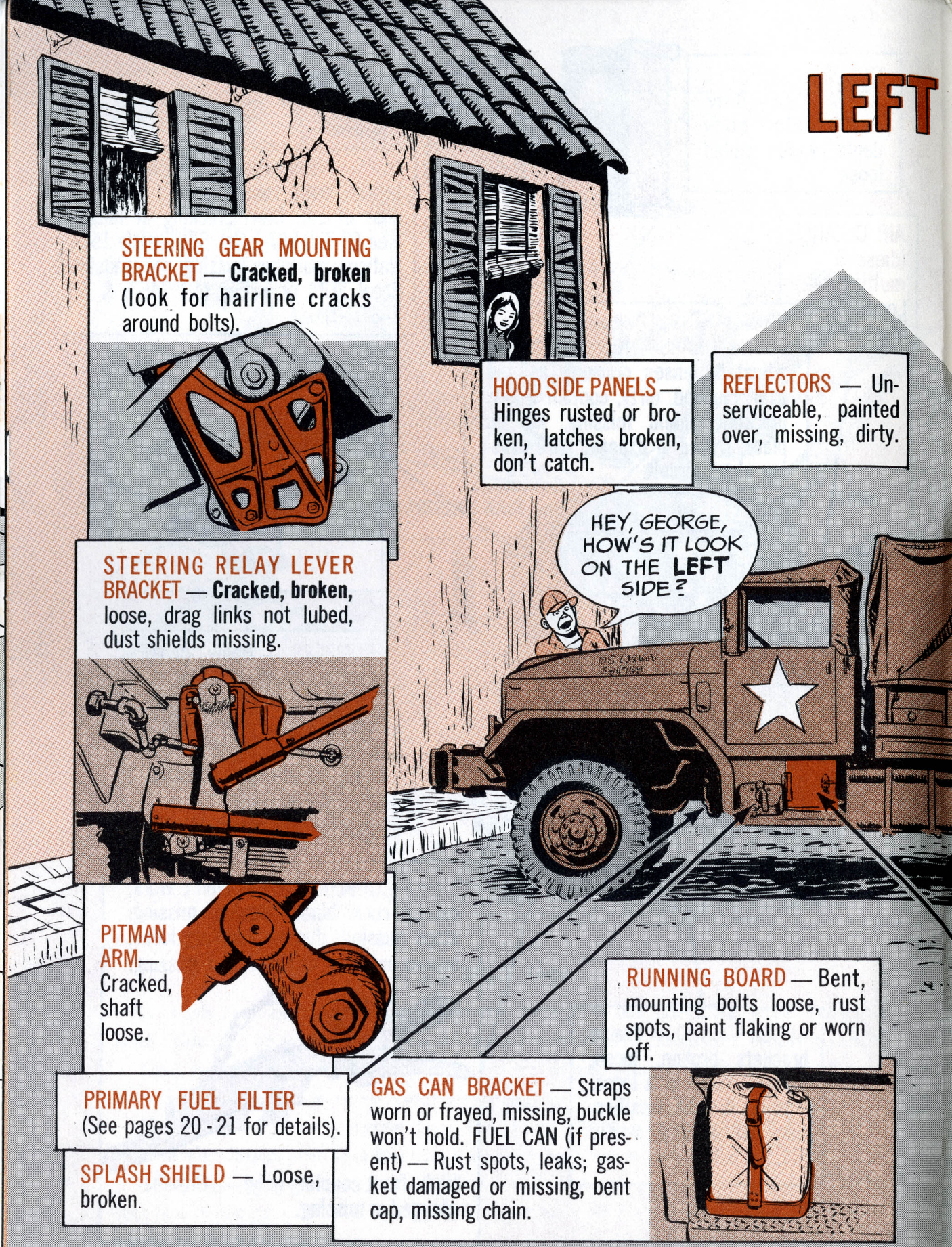
PITMAN ARM— Cracked, shaft loose.

PRIMARY FUEL FILTER — (See pages 20 - 21 for details).

SPLASH SHIELD — Loose, broken.

HOOD SIDE PANELS — Hinges rusted or broken, latches broken, don't catch.

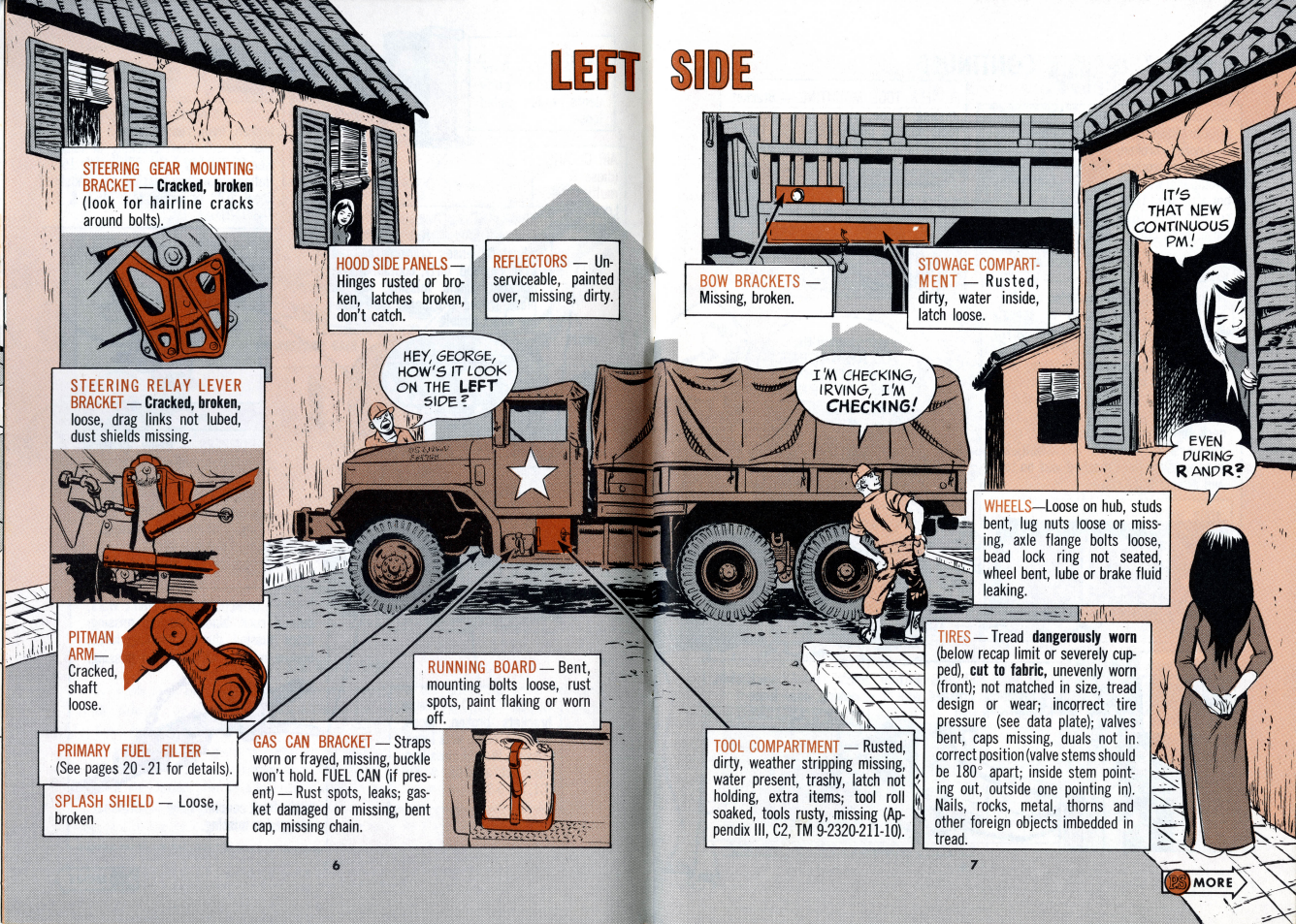
REFLECTORS — Unserviceable, painted over, missing, dirty.



RUNNING BOARD — Bent, mounting bolts loose, rust spots, paint flaking or worn off.

GAS CAN BRACKET — Straps worn or frayed, missing, buckle won't hold. FUEL CAN (if present) — Rust spots, leaks; gasket damaged or missing, bent cap, missing chain.

LEFT SIDE



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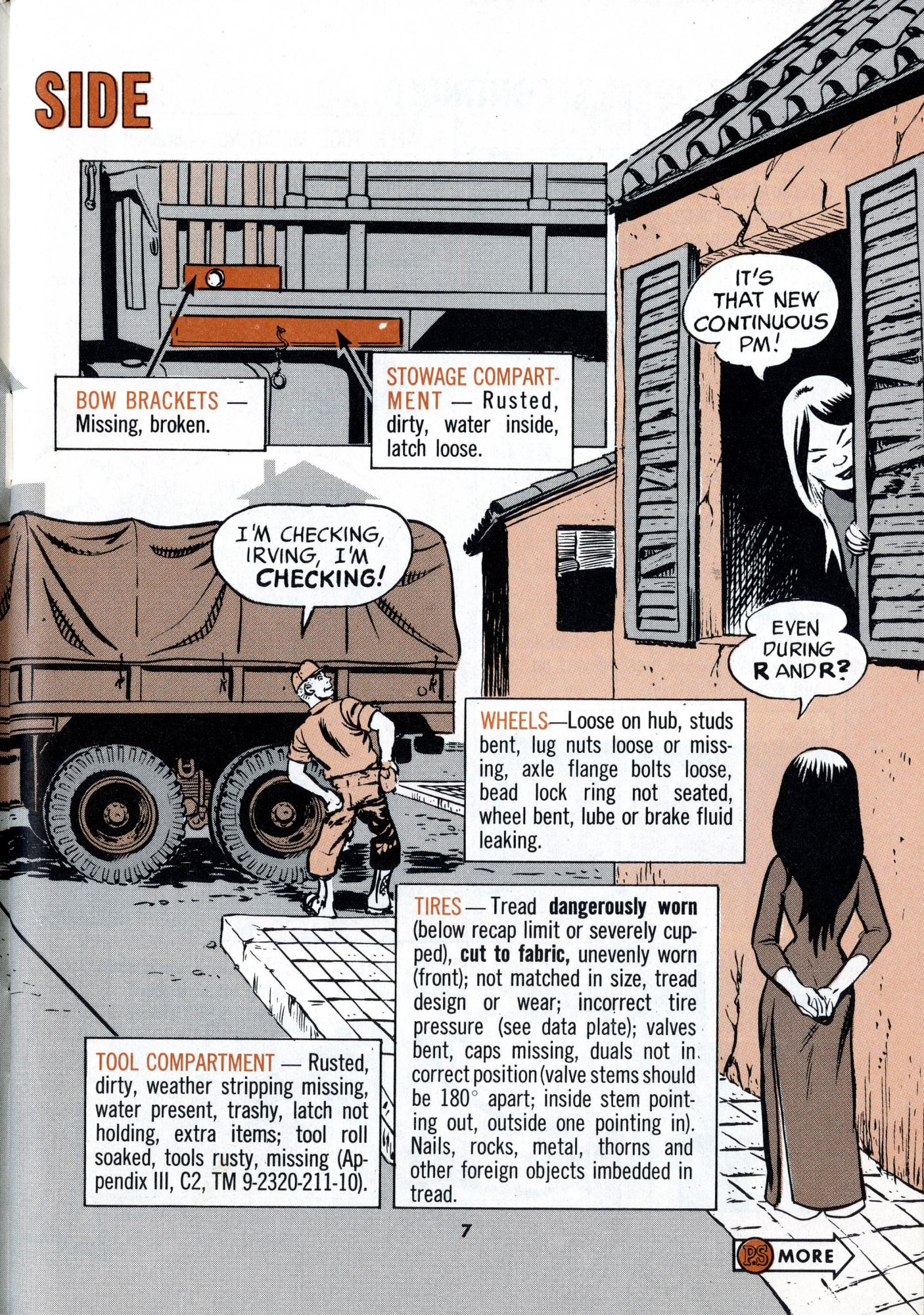
SIDE



BOW BRACKETS — Missing, broken.

STOWAGE COMPARTMENT — Rusted, dirty, water inside, latch loose.

WHEELS—Loose on hub, studs bent, lug nuts loose or missing, axle flange bolts loose, bead lock ring not seated, wheel bent, lube or brake fluid leaking.

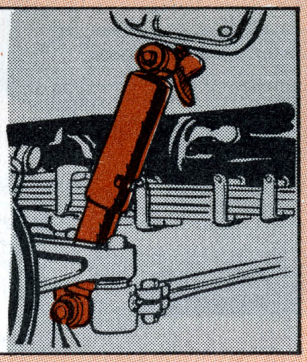
TIRES — Tread **dangerously worn** (below recap limit or severely cupped), **cut to fabric,** unevenly worn (front); not matched in size, tread design or wear; incorrect tire pressure (see data plate); valves bent, caps missing, duals not in correct position (valve stems should be 180° apart; inside stem pointing out, outside one pointing in). Nails, rocks, metal, thorns and other foreign objects imbedded in tread.

TOOL COMPARTMENT — Rusted, dirty, weather stripping missing, water present, trashy, latch not holding, extra items; tool roll soaked, tools rusty, missing (Appendix III, C2, TM 9-2320-211-10).

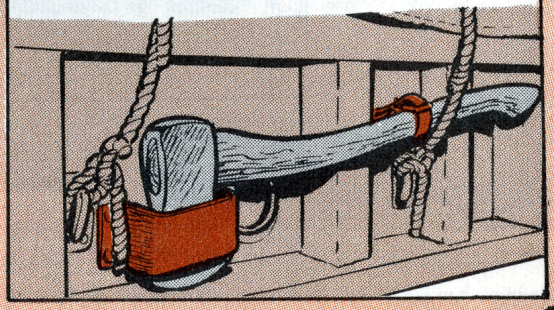
PS MORE

LEFT SIDE CONTINUED

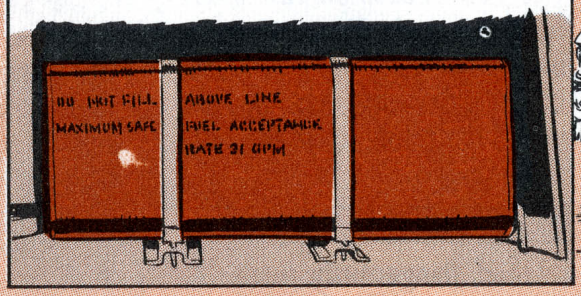
SHOCK ABSORBERS — Loose, broken, leaking, not working (should feel warm or hot after road test), rubber bushings loose, worn out.

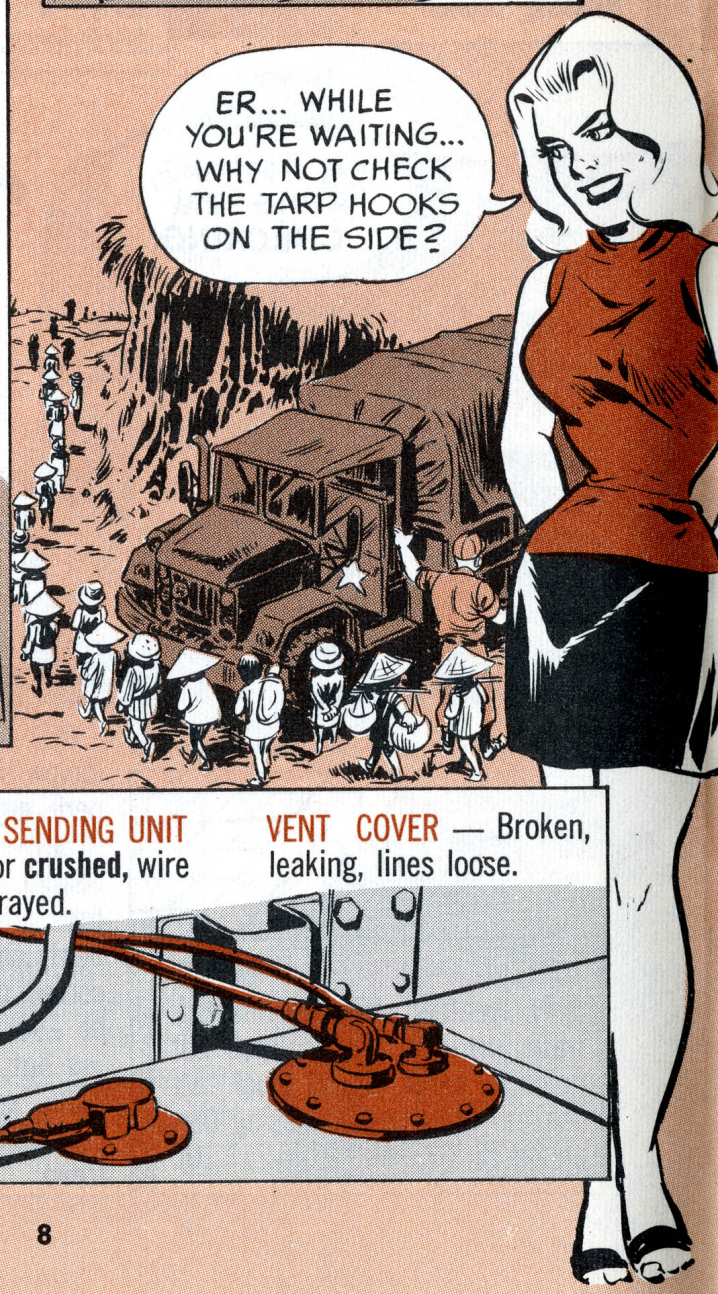


PIONEER TOOL MOUNTING — Bracket missing, loose; straps torn, missing, tools missing (Appendix III, C2, TM 9-2320-211-10 & TB ORD 2300-20/4).

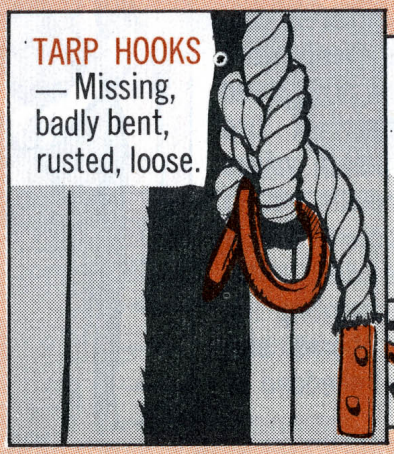


FUEL TANK — (Right side also on M51 and M52 trucks) — **Leaks or seeps,** dented (big dent cuts fuel capacity), fuel level too high (must be at least 2 inches below top), retaining straps and support rails **loose,** cap chain missing, gasket missing or torn. Cap valve not in open position (except for fording), fuel neck screen damaged or missing, tank markings not readable (TB 746-93-1), feed and vent lines mashed; dirt on top and around filler cap.



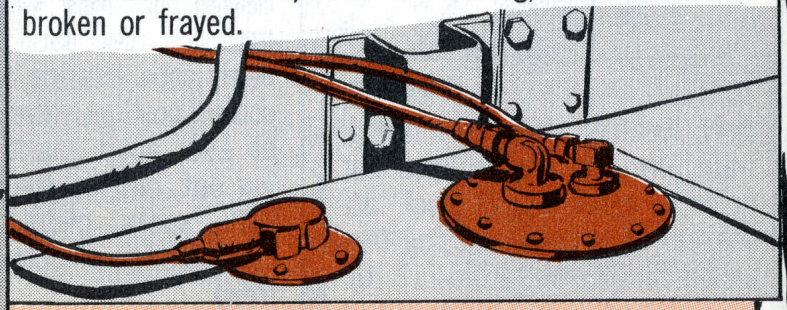


TARP HOOKS — Missing, badly bent, rusted, loose.



FUEL GAGE SENDING UNIT — Connector **crushed,** wire broken or frayed.

VENT COVER — Broken, leaking, lines loose.



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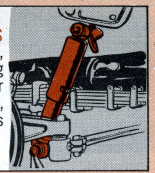

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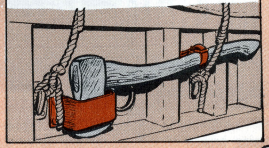

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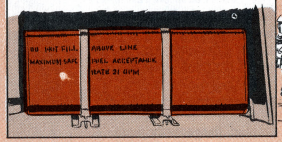

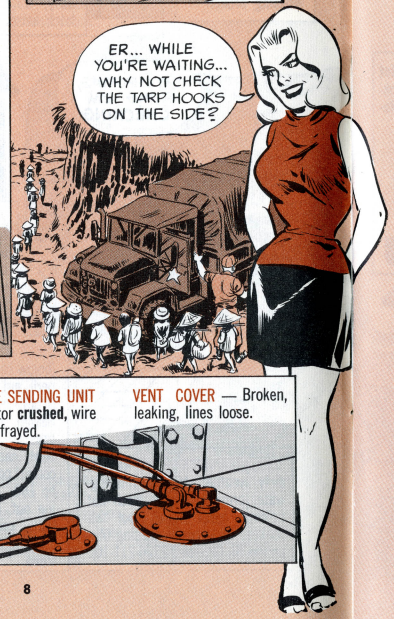

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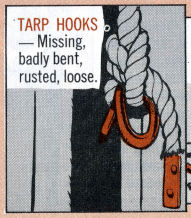

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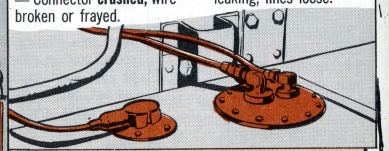
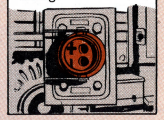


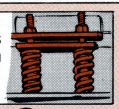
RIGHT SIDE

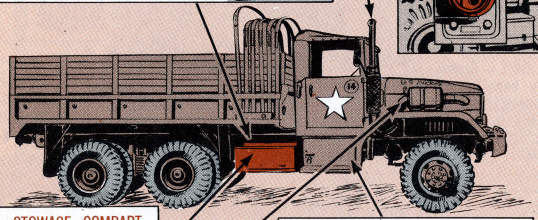
EXHAUST STACK (Multifuel) — Less than ½-in clearance to both fender and plate; less than ⅛-in clearance between lower spring and mounting bracket. See TB 750-981-1 (Jan 67) Article 133 and MWO 9-2320-211-20/10 (Mar 67).

SLAVE RECEPTACLE (Cold climates only) — Cover missing, contacts burned beyond use, evidence of arcing.



CARGO BODY MOUNTING — Brackets cracked, bolts loose, compression springs cracked.



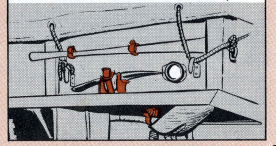


STOWAGE COMPARTMENT — Rusty, dirty, water present, trashy, loose latch.

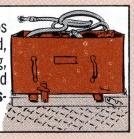
PICK-UP TUBE — Not pointed at fender — side panel corner.

BATTERIES — Electrolyte **below plate tops, cracked, leaking, dead,** installed wrong (positive terminals should face truck front). Vent caps **missing, broken,** threads stripped, vents clogged. Cable terminals **loose, cracked,** not greased (thin coat only), corroded. Cable pinched (should be laid on shelf), positive cable **hits battery cover,** loose enough to cause arcing. Not date stamped (TM 9-6140-200-15). No diluted electrolyte marking if in tropical area.

PIONEER TOOL MOUNTING — Bracket missing, loose; straps torn, missing; tools missing (Appendix III, C2, TM 9-2320-211-10 & TB ORD 2300-20/4).



BATTERY BOX—Clamps **missing,** wing nuts bind, warning plate missing, box rusted; cover hold down bolts & nuts **missing,** rusted, loose.



MORE

RIGHT SIDE

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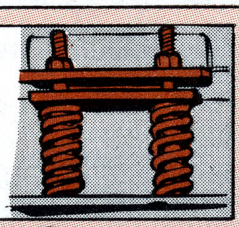
CARGO BODY MOUNTING — Brackets cracked, bolts loose, compression springs cracked.



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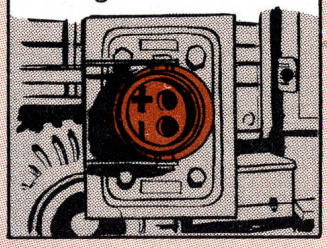

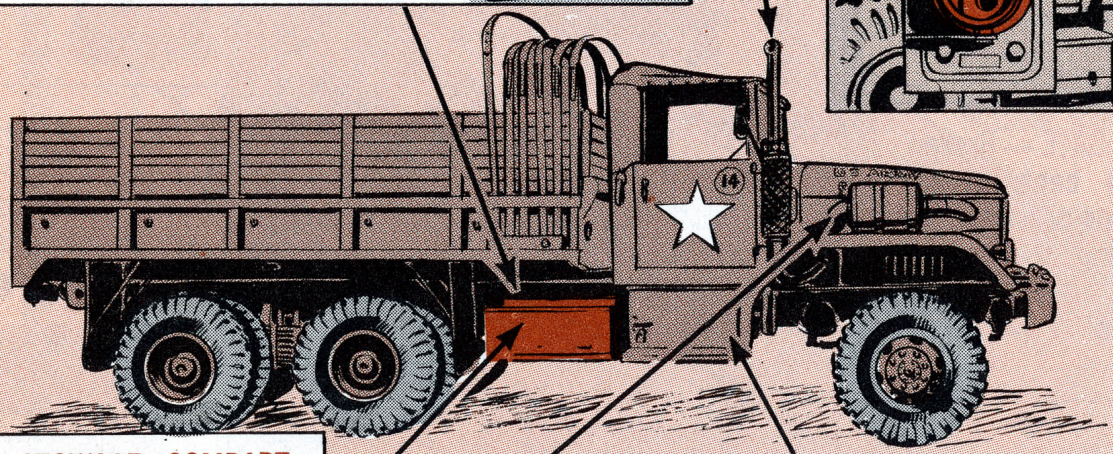

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BATTERIES — Electrolyte **below plate tops, cracked, leaking, dead,** installed wrong (positive terminals should face truck front). Vent caps **missing, broken,** threads stripped, vents clogged. Cable terminals **loose, cracked,** not greased (thin coat only), corroded. Cable pinched (should be laid on shelf), positive cable **hits battery cover,** loose enough to cause arcing. Not date stamped (TM 9-6140-200-15). No diluted electrolyte marking if in tropical area.

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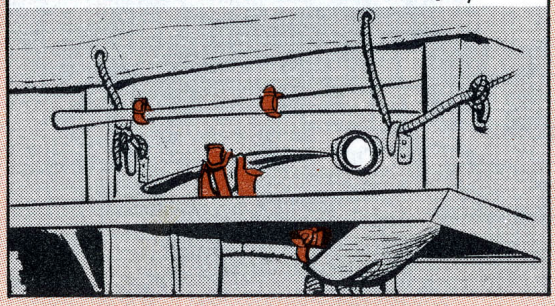
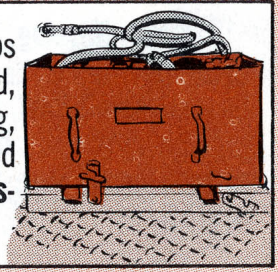


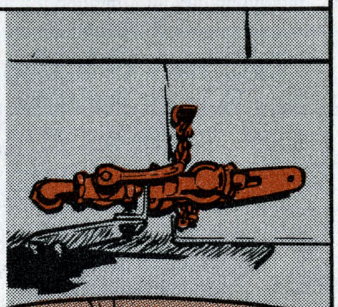
BATTERY BOX—Clamps **missing,** wing nuts bind, warning plate missing, box rusted; cover hold down bolts & nuts **missing,** rusted, loose.



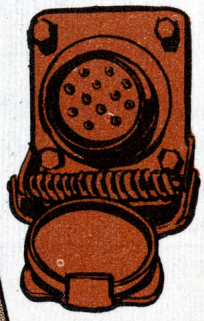
MORE

REAR

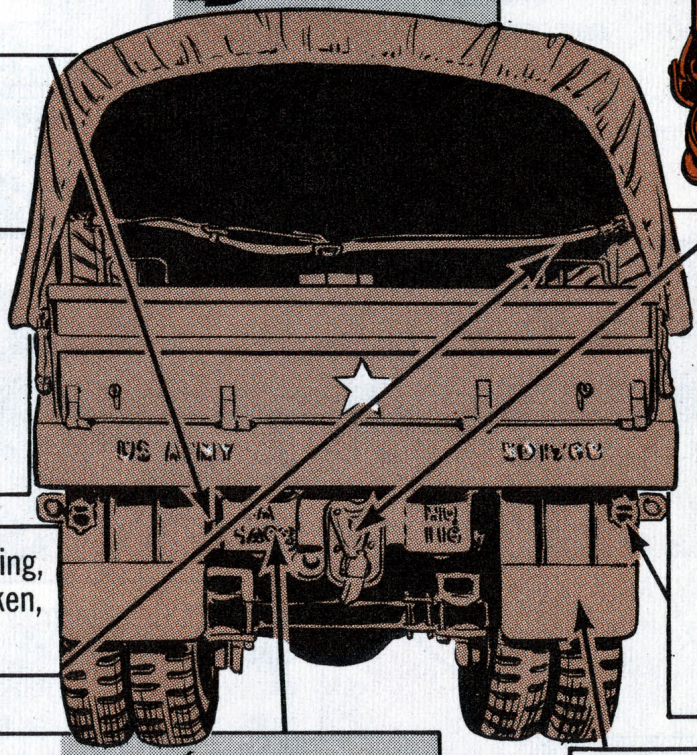
TRAILER AIR BRAKE COUPLINGS — Cap or chain broken or missing, rubber seal missing or rotted (check both service & emergency outlets); air valve won't work, frozen; dummy coupling damaged, missing; cutout cock binds, stops missing.



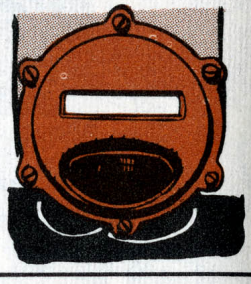
TRAILER COUPLING RECEPTACLE — Cap missing or sprung, male prongs don't make contact, dirty, outer ring damaged.



TAIL GATE — Broken, badly bent, chains missing or broken, retaining hook won't open, either step not usable.



REAR LIGHTS — **Not working.** Lenses broken, cloudy, dirty. Reflectors missing.

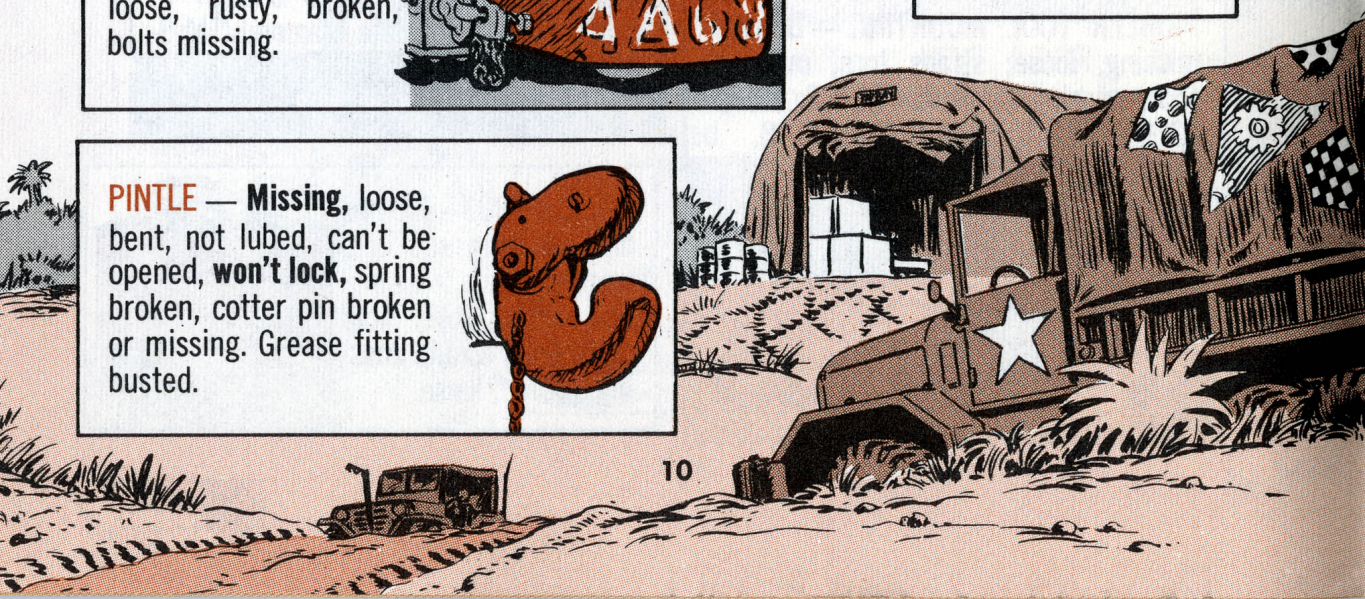


SAFETY STRAP — Missing, torn, snap hook broken, bolts or eyes missing.

BUMPERETTES — Unit markings **missing** or not legible, badly bent, loose, rusty, broken, bolts missing.

MUD FLAPS — Missing, loose, torn, bolts missing.

PINTLE — **Missing,** loose, bent, not lubed, can't be opened, **won't lock,** spring broken, cotter pin broken or missing. Grease fitting busted.



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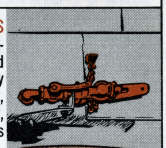

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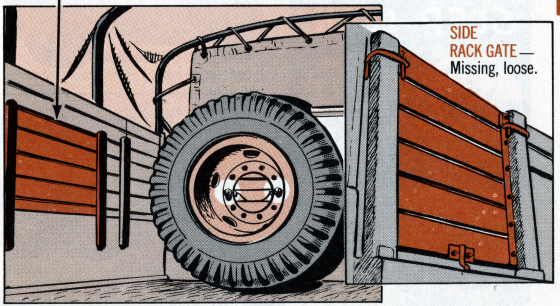
CARGO

SEATS & RACKS — Missing, rusted, unpainted, broken, rotted; installed wrong (handholds should face rear); sockets missing, bent; hinge pins missing, cotter pins missing, seat latches don't hold.

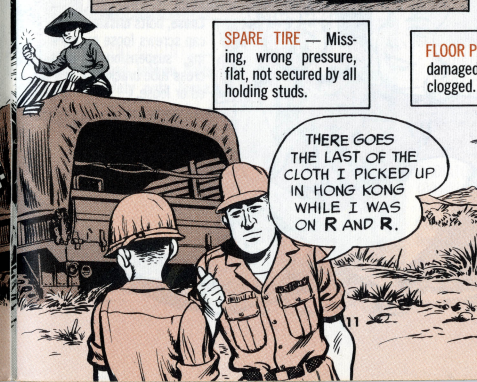
CANVAS, BOWS & STRAPS — Large holes or rips, mildewed, broken seams, rotted threads, missing, dirty, grommets missing. Ropes and straps missing, broken, torn, metal tips missing. End curtain eyelets ripped. Lashing hooks broken, missing. Bows broken, missing; bow stake tubes broken; buckles broken, missing; nuts loose. Installed wrong.



SIDE RACK GATE — Missing, loose.

SPARE TIRE — Missing, wrong pressure, flat, not secured by all holding studs.

FLOOR PLATES—Bent, damaged, drain hole clogged.



MORE

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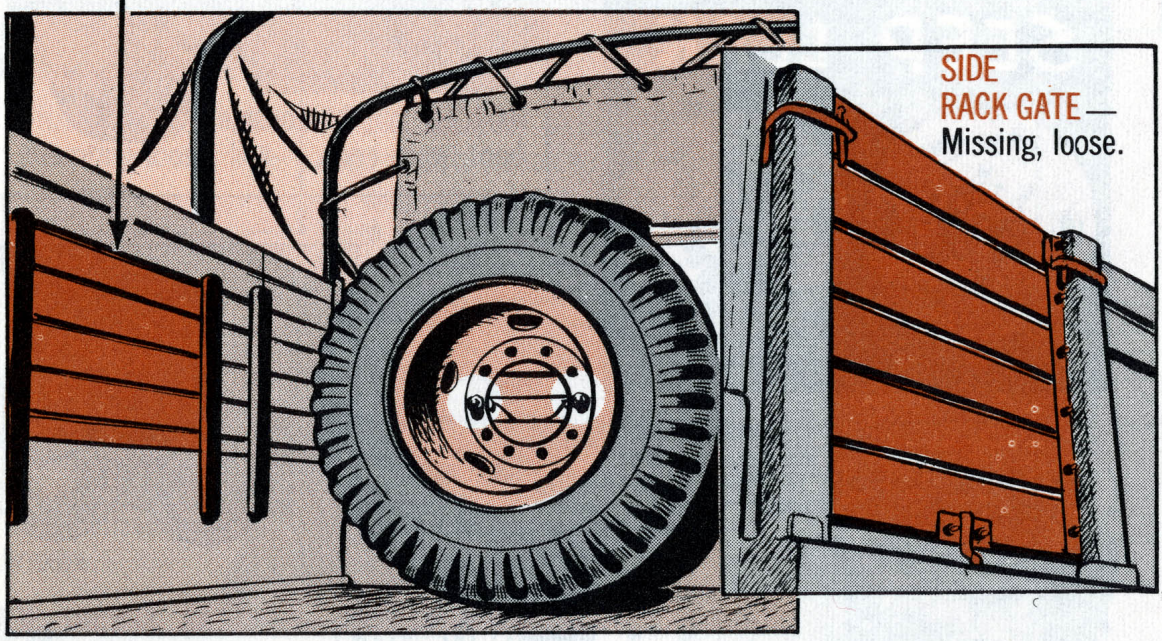

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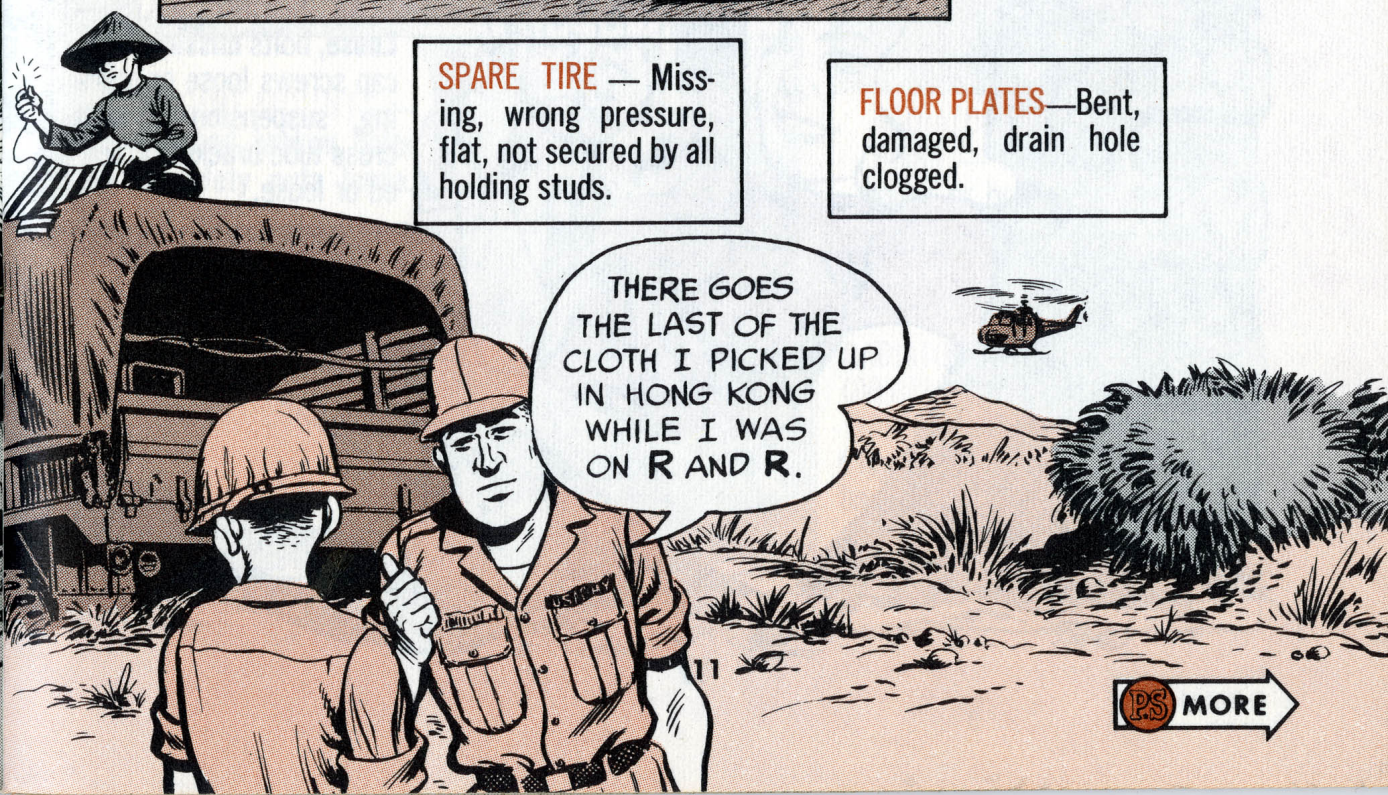
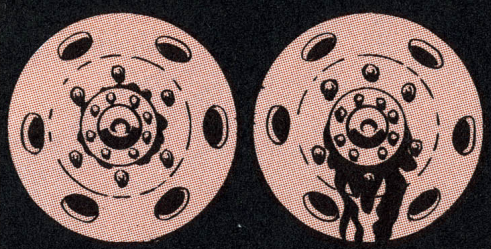


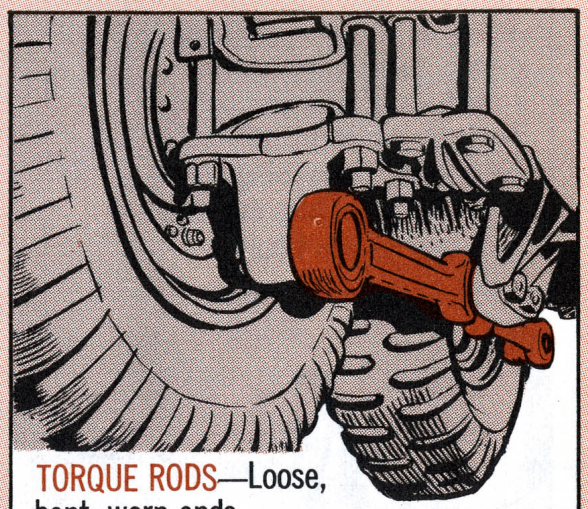
PS MORE

UNDERNEATH

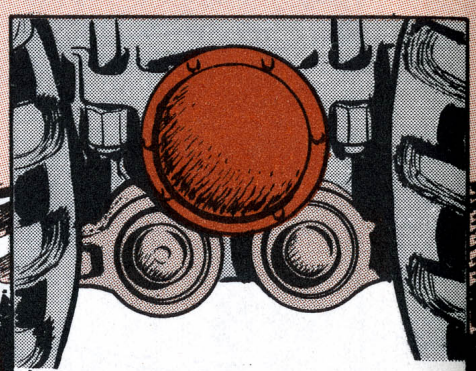
Before looking underneath and in the engine compartment, remember not to confuse seeps with true leaks. A seep will only dampen or stain the area right around that seal or gasket. But a leak will show a path of running fluid or fling it around onto surrounding parts.

SEEP LEAK

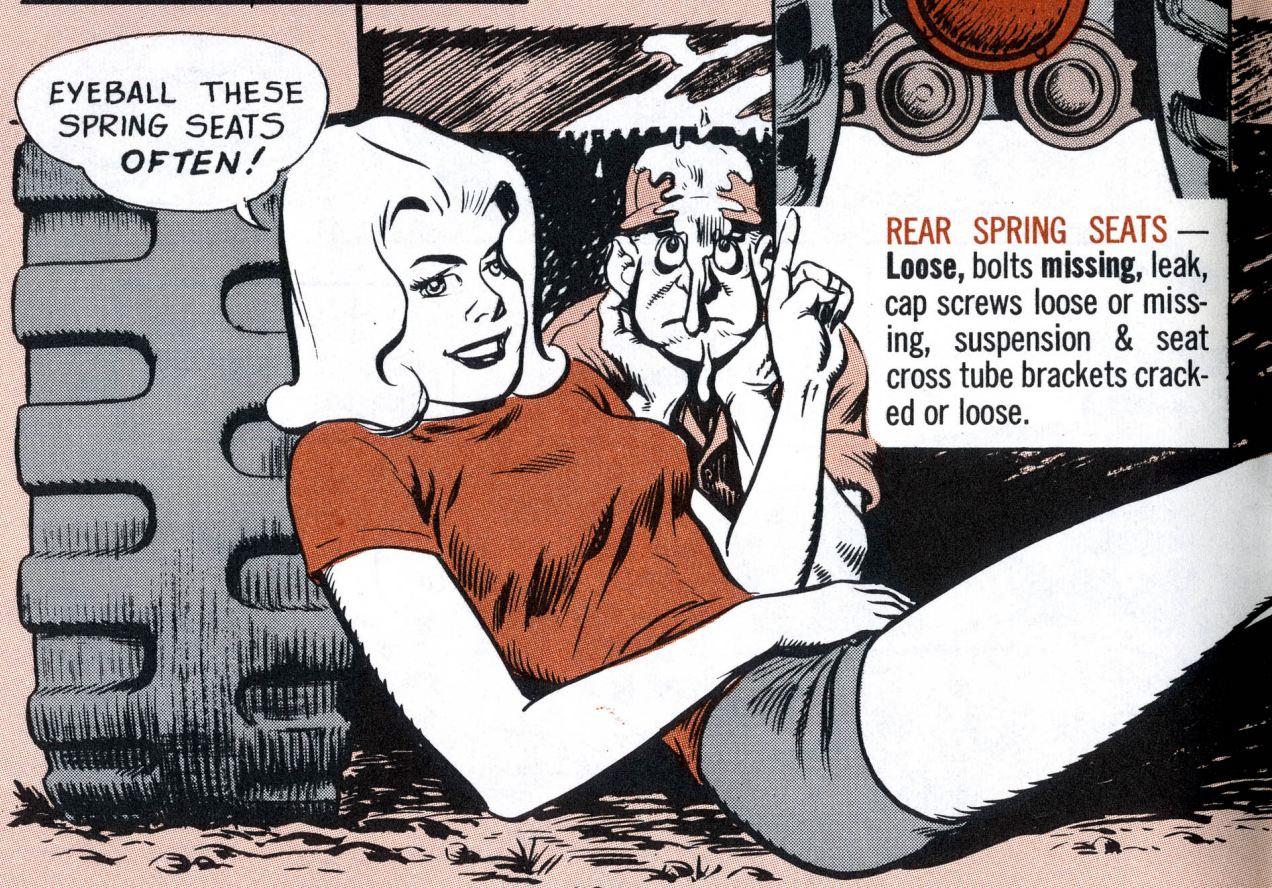




TORQUE RODS—Loose, bent, worn ends.



REAR SPRING SEATS — **Loose,** bolts **missing,** leak, cap screws loose or missing, suspension & seat cross tube brackets cracked or loose.



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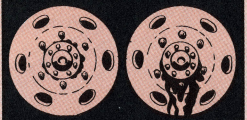

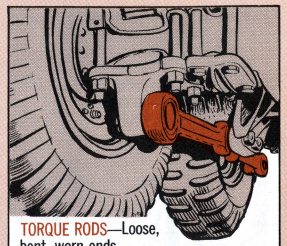

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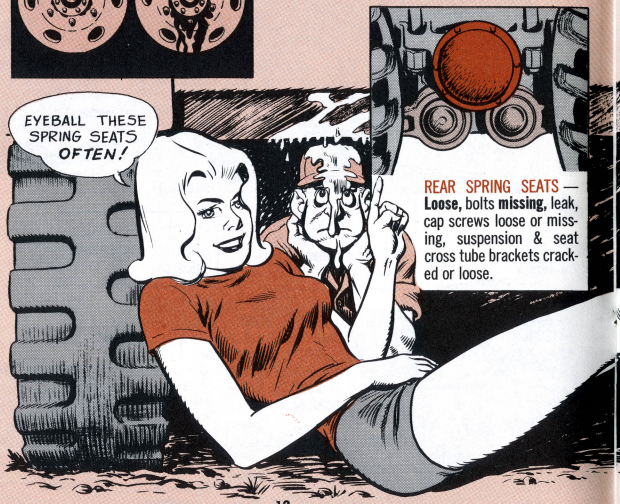
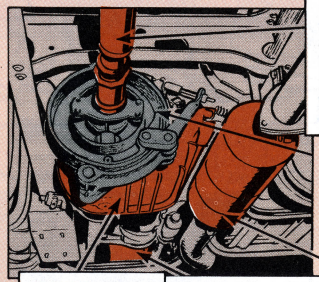


REAR SPRING SEATS — **Loose,** bolts **missing,** leak, cap screws loose or missing, suspension & seat cross tube brackets cracked or loose.



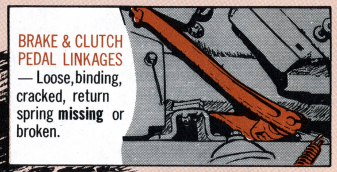
SHAFTS & U-JOINTS — U-joint **broken, cracked, binding, out of alinement,** U-joint or flange bolts **missing,** wrong bolt used, bolts loose. Seals blown or missing. Shafts **damaged,** too much radial play, not lubed.

PARKING BRAKE — **Won't hold,** adjusted wrong (drags when fully released), shoes bind, brake shoe lever **bent** or **cracked,** cable **loose,** flange bolts loose or missing, drum cracked; lining worn to rivets, soaked with grease or oil.

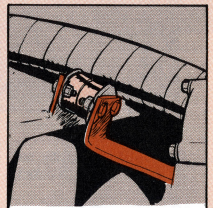
TRANSFER — **Leaks,** mounting loose, linkage loose.

ENGINE OIL PAN — **Leaks,** dented, dirty (caked w/mud or dirt), plug **loose,** bolts **loose.**

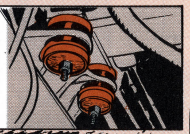
MUFFLER — **Leaking,** holes, clamps loose, rusted out.



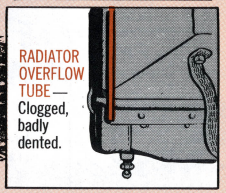
BRAKE & CLUTCH PEDAL LINKAGES — Loose, binding, cracked, return spring **missing** or broken.



RADIATOR MOUNTING SUPPORT — Cracked, bolts loose or broken.

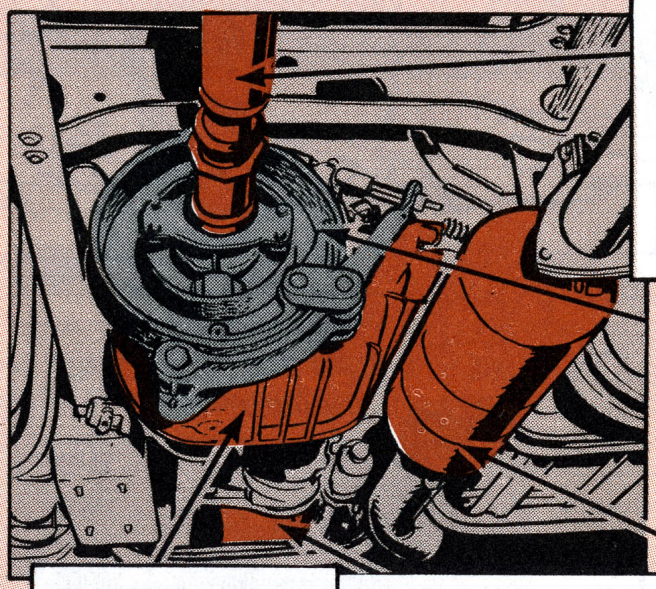


ENGINE MOUNTS — **Cracked, broken,** bolts & safety nuts **loose, missing.**



RADIATOR OVERFLOW TUBE — Clogged, badly dented.

MORE



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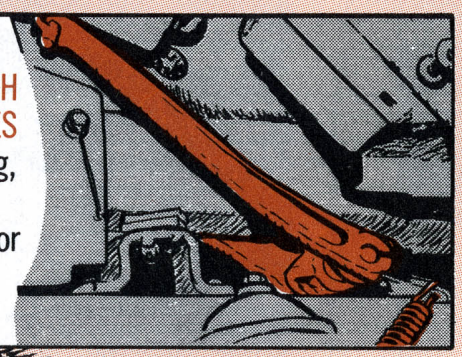
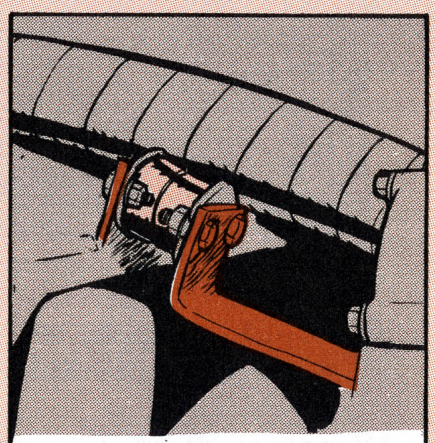
MUFFLER — **Leaking,** holes, clamps loose, rusted out.

TRANSFER — **Leaks,** mounting loose, linkage loose.

ENGINE OIL PAN — **Leaks,** dented, dirty (caked w/mud or dirt), plug **loose,** bolts **loose.**

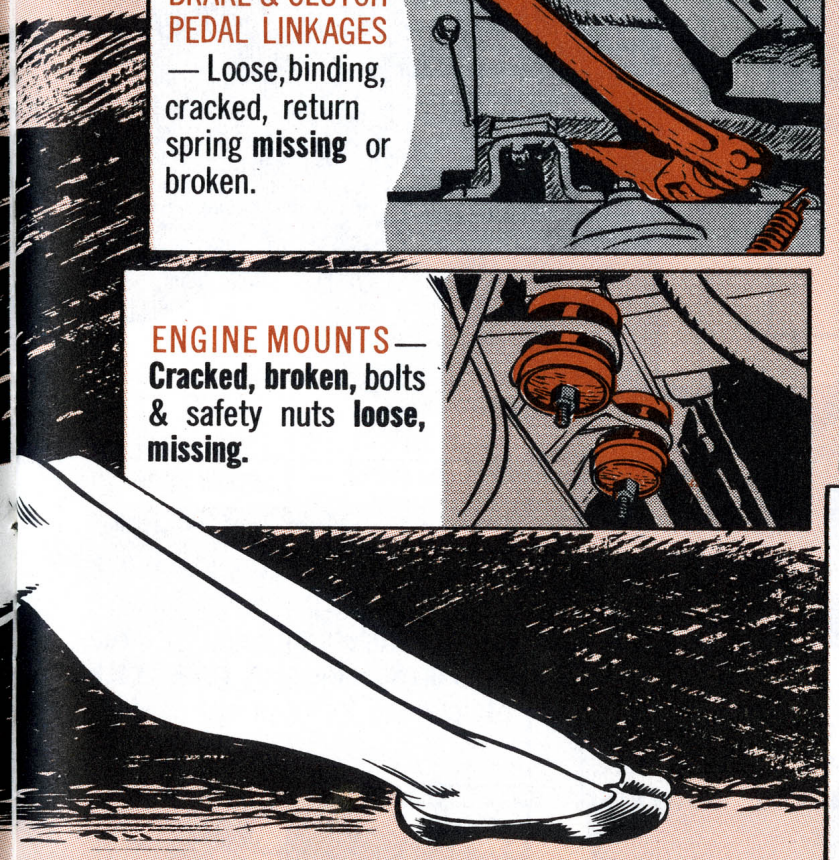
BRAKE & CLUTCH PEDAL LINKAGES — Loose, binding, cracked, return spring **missing** or broken.



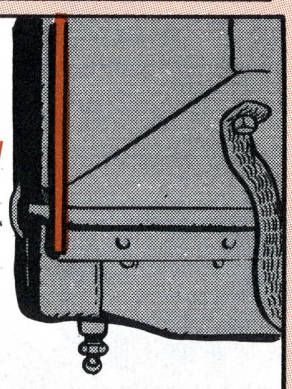


RADIATOR MOUNTING SUPPORT — Cracked, bolts loose or broken.

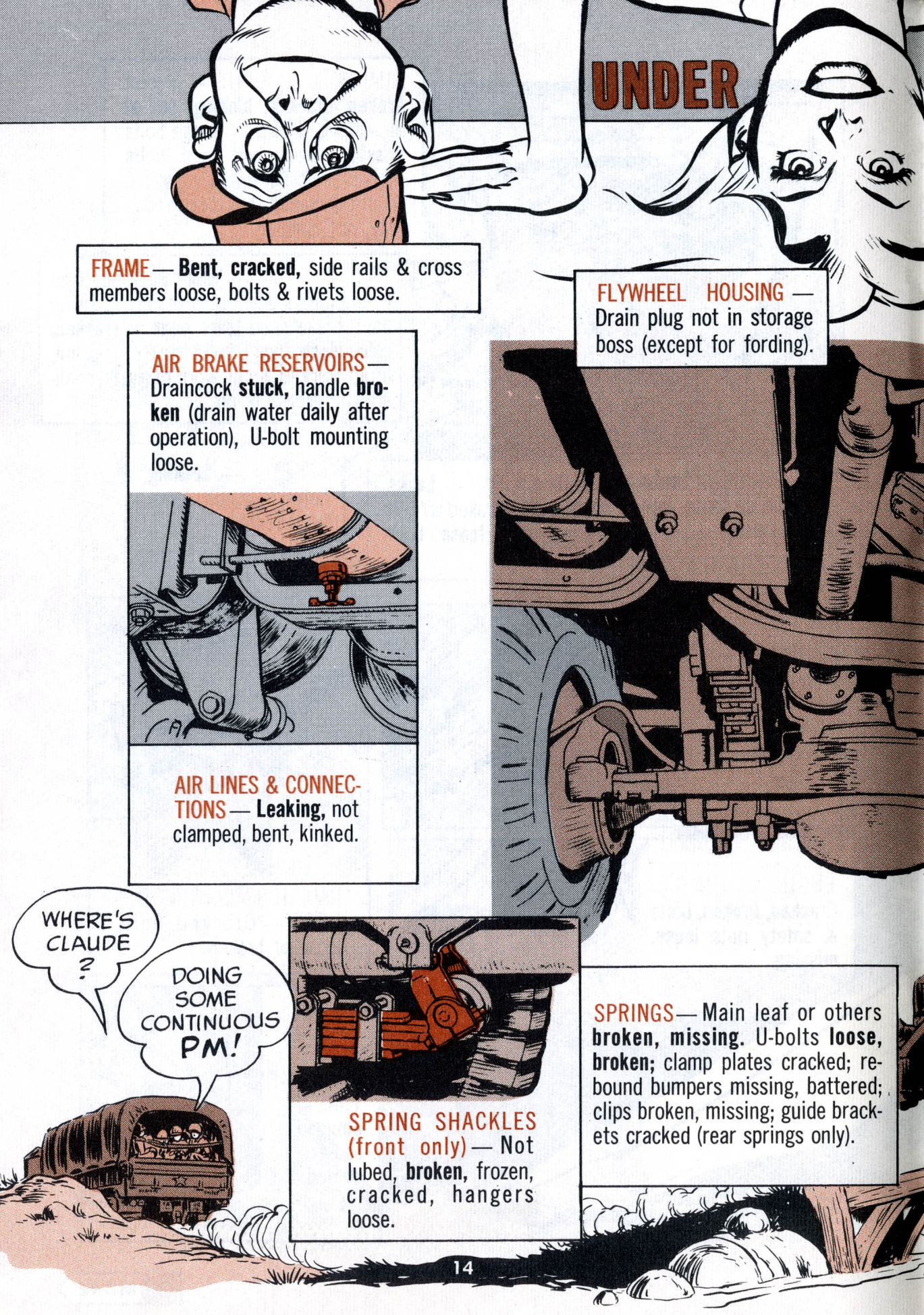
ENGINE MOUNTS — **Cracked, broken,** bolts & safety nuts **loose, missing.**



RADIATOR OVERFLOW TUBE — Clogged, badly dented.



PS MORE


UNDER
FRAME — **Bent, cracked,** side rails & cross members loose, bolts & rivets loose.
FLYWHEEL HOUSING — Drain plug not in storage boss (except for fording).
AIR BRAKE RESERVOIRS — Draincock **stuck,** handle **broken** (drain water daily after operation), U-bolt mounting loose.
AIR LINES & CONNECTIONS — **Leaking,** not clamped, bent, kinked.
WHERE'S CLAUDE ?
DOING SOME CONTINUOUS PM!
SPRING SHACKLES (front only) — Not lubed, **broken,** frozen, cracked, hangers loose.
SPRINGS — Main leaf or others **broken, missing.** U-bolts **loose, broken;** clamp plates cracked; rebound bumpers missing, battered; clips broken, missing; guide brackets cracked (rear springs only).

UNDER NEATH

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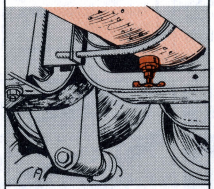

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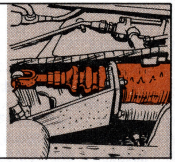
TRANSMISSION — **Leaks,** breather vent plugged, air line loose.

DIFFERENTIAL AND AXLE HOUSINGS — **Leak,** air breather valves plugged, drain plugs loose.

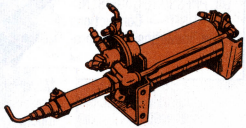
TAIL PIPE — Broken, clogged, badly dented, clamps loose, **rusted out.**

BRAKE MASTER CYLINDER — **Leaking, loose,** boot torn or missing, leaks into boot, not tight at both ends.



Look for any mashed, busted grease fittings. Check the **LO** for locations.

BRAKE AIR-HYDRAULIC CYLINDER — **Leaking, loose,** mounting bracket cracked, hydraulic or air lines loose.



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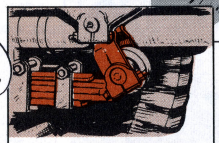

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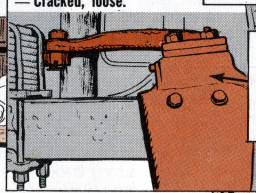
TIE ROD — **Worn,** bent, ends loose.

STEERING KNUCKLE ARM — **Cracked, loose.**



CV JOINT BOOT — Installed wrong, **torn** (exposes joint), locking wire broken, missing, boot guard missing, cap screws missing.

MORE

NEATH

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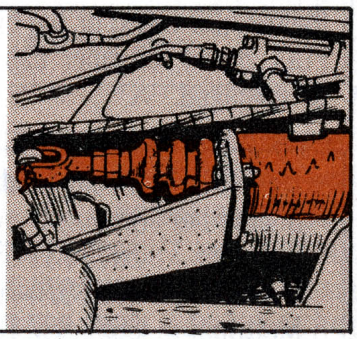

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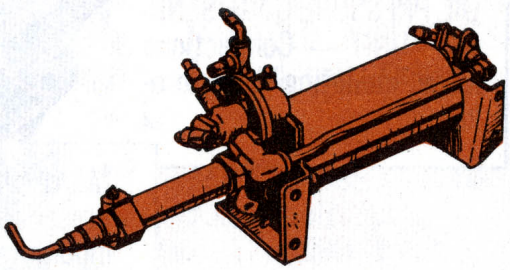

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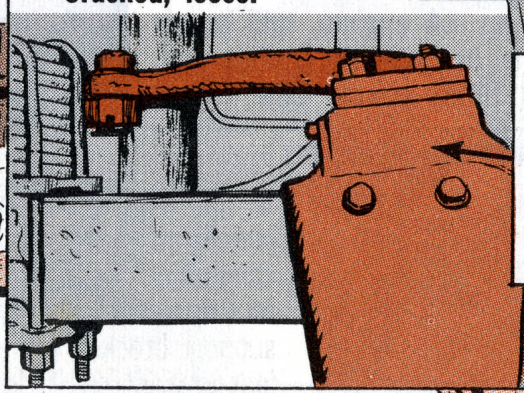

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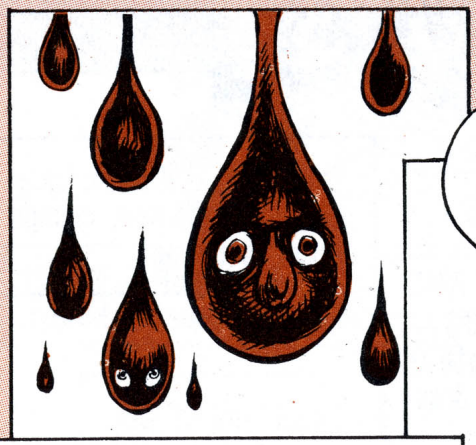
P.S. MORE

ENGI RIGHT

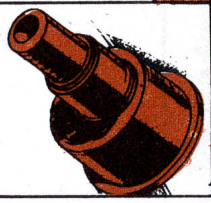


OIL GETS CHANGED BASED ON OPERATING CONDITIONS AND CLIMATE.

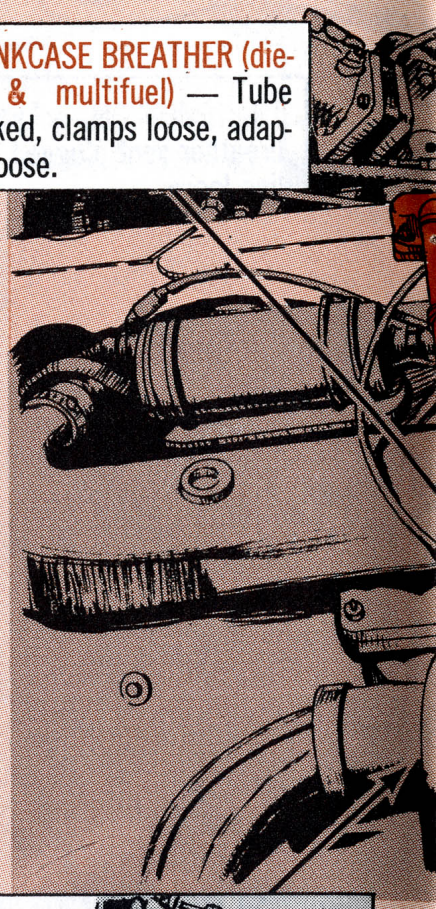
CRANKCASE OIL — **Level too low** (below ADD mark) or too high (over FULL mark), oil filler cap missing or damaged.

DIPSTICK — Wrong kind. Should be: FSN . . .
Gasoline = 2805-737-6338
Diesel = 6680-974-7624
Multifuel = 6680-887-1334
(Multifuel FULL mark is 21-⅛ inches from screw cap bottom).

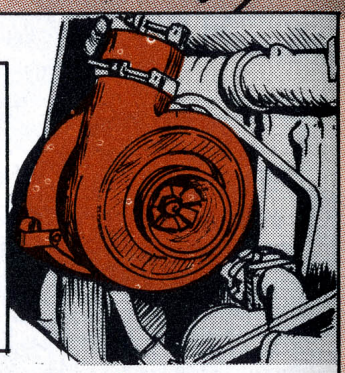
OIL PRESSURE GAGE SENDING UNIT — Connections loose, mounting loose, broken.



CRANKCASE BREATHER (diesel & multifuel) — Tube cracked, clamps loose, adapter loose.

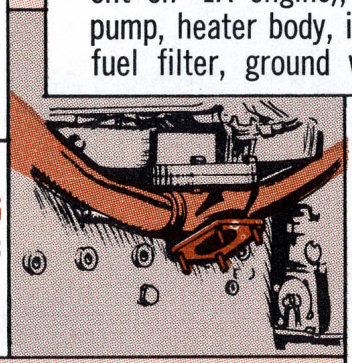


MANIFOLD (FLAME) HEATER (if present) — Loose connections or mountings on spark plug, spray nozzle, solenoid valves (not present on -1A engine), fuel supply pump, heater body, ignition unit, fuel filter, ground wire.



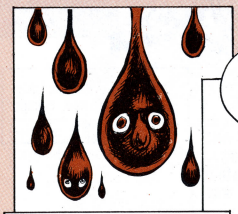
EXHAUST MANIFOLD — Leaks, loose, broken, studs or nuts missing, gasket blown.

EXHAUST PIPE MOUNTING FLANGE — **Loose, broken;** studs or nuts missing.



TURBOSUPERCHARGER — (diesel & multifuel) — Air cleaner tube punctured, clamps loose, lube line connection loose, rubber connectors ripped or loose, exhaust elbow support bracket loose or cracked (not present on -1A engine).

ENGINE
RIGHT SIDE



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CRANKCASE BREATHER (diesel & multifuel) — Tube cracked, clamps loose, adapter loose.

CYLINDER HEAD (ROCKER ARM) COVERS — Cracked, gaskets leak.

HEAD BOLTS — Loose, missing; head gasket leaks, cap screws loose or broken.

LIFTING BRACKETS (EYES) — Broken, cracked.

RADIATOR SUPPORT RODS — Missing, loose.

RADIATOR — Core **leaks,** fins bent, mashed, clogged, dirty; water above coolant level cock; coolant cock rusted, won't turn; cap **missing,** cap not sealing, chain missing, overflow tube damaged, hose clamps loose, core clogged with debris, stay rod cracked, spring broken.

WATER INLET AND OUTLET MANIFOLD ASSEMBLIES — Cracked, bolts loose.

RADIATOR HOSES — **Leak,** cracked, soft spots, collapsed, swollen, **loose.**

GENERATOR — **Won't put out,** unsteady, connections loose, housing rusted; pulley loose, bent, cracked, warped; inspection plug frozen, mounting bolts **loose.**

DRIVE BELTS—Missing, broken, badly frayed, cracked (twist to check), wrong adjustment — should be ⅛-¼ inch deflection halfway between fan and generator pulley — not matched. Multifuel engine deflection = ¾ inch.

MORE

INE SIDE

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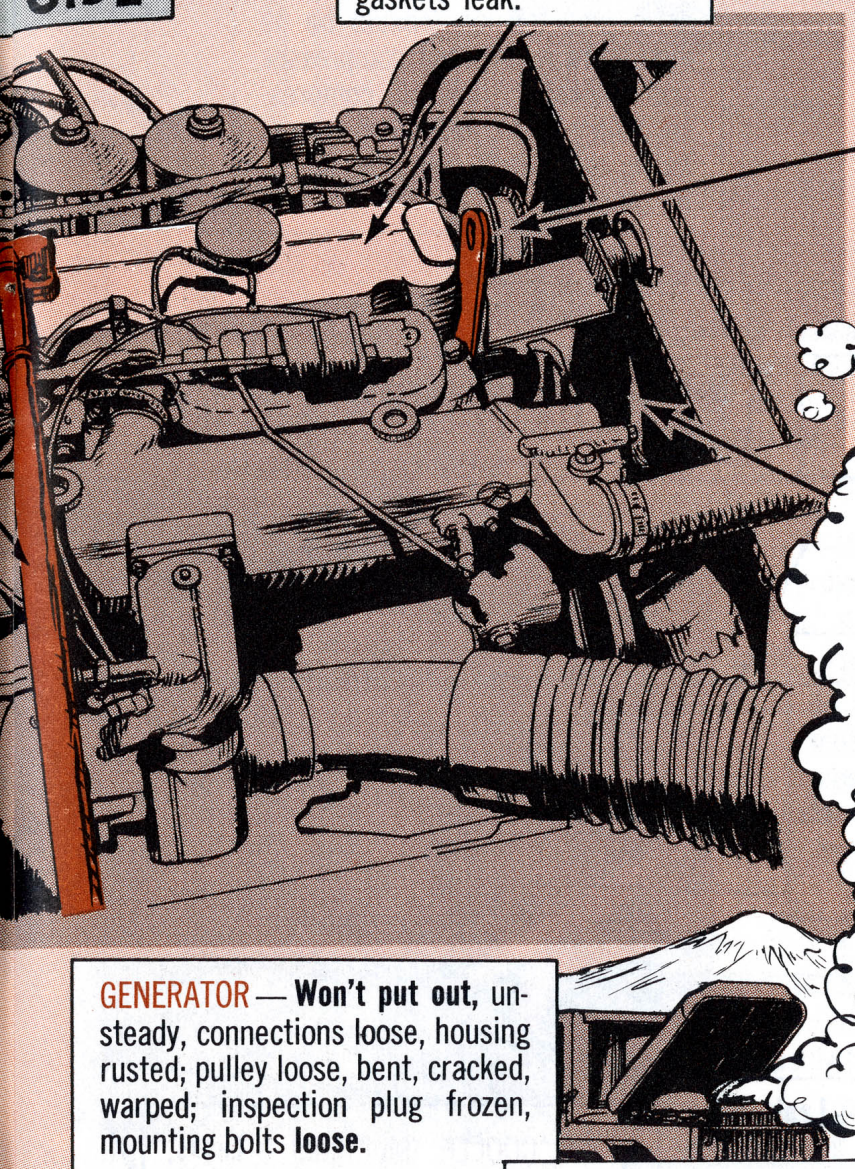
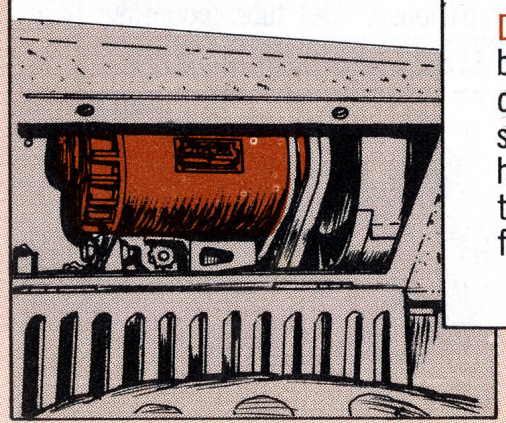
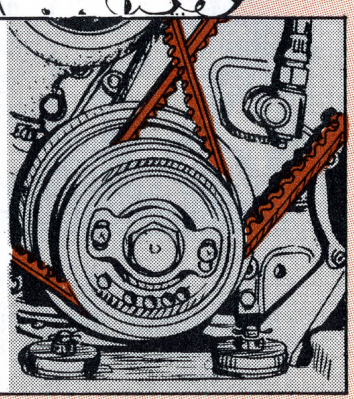




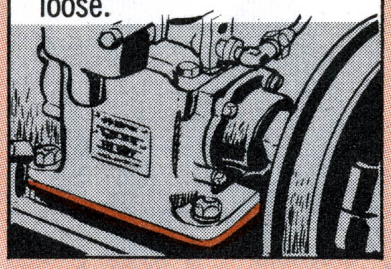


PS MORE

ENG

LEFT

COMPRESSOR MOUNTING BRACKET — Cracked, loose.

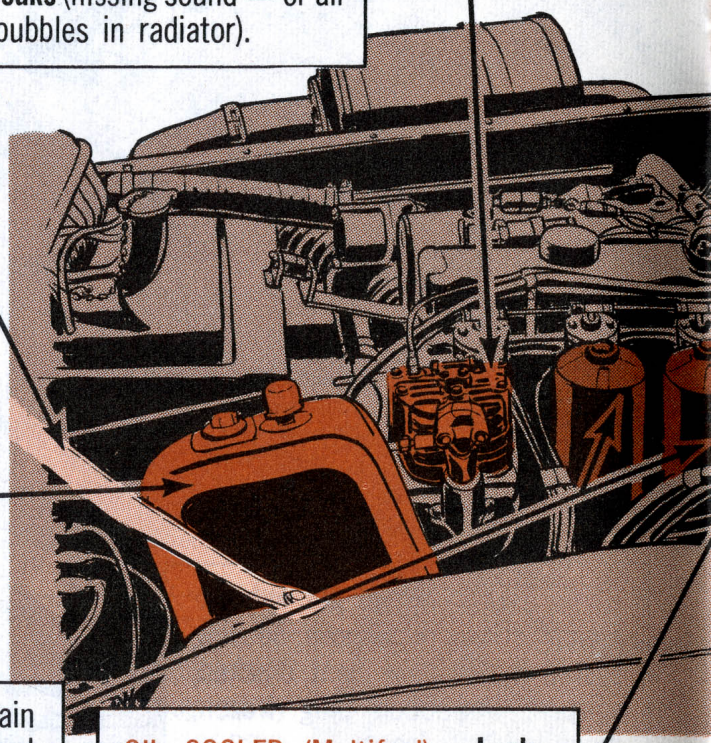


AIR COMPRESSOR — **Leaks,** wrong drive belt tension (should be ½ inch halfway between compressor and crankshaft pulleys), compressor pulley loose, pulley cap screws loose, crankshaft end play, air inlet blocked.

CYLINDER HEAD AND BLOCK — Compression or water **leaks** (hissing sound — or air bubbles in radiator).

HEADLIGHT PANEL BRACES — Loose, cracked.

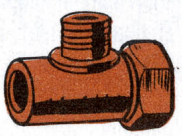
STEERING GEAR HYDRAULIC RESERVOIR — Wrong level (should be ¼ inch above filler screen bottom or ¾ full), leaks, tanks rusted, connections loose, wing nuts not finger tight for reservoir and steering gear lines.



OIL FILTERS — **Leak,** drain plugs frozen, not serviced (see log book), element not seated properly (TB 750-933-1/4, Article 142.)

OIL COOLER (Multifuel) — **Leaks,** cover loose, nuts missing, hose clamps loose, inlet tube mounting loose.

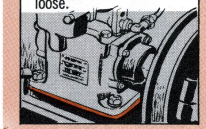
TACH SENDING UNIT — Connections loose, mounting loose, broken.



ENGINE

LEFT SIDE

COMPRESSOR MOUNTING BRACKET — Cracked, loose.



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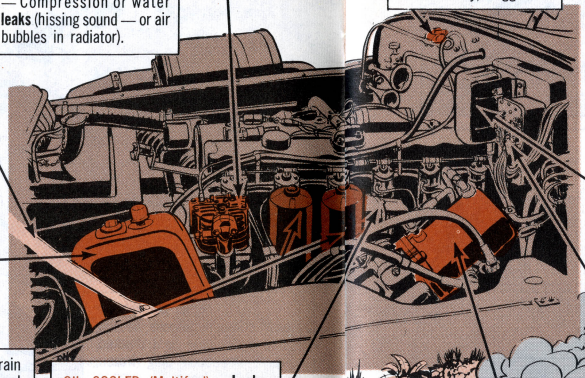
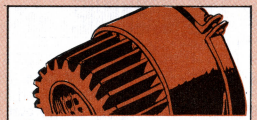


COMPRESSOR GOVERNOR — Seal missing, broken; strainer dirty, clogged.



AIR CLEANER (diesel & multifuel) — Latches loose, broken; rubber connectors ripped, clamps loose, mounting bolts & nuts loose or missing, dirty element.

FILTERS NEED TO BE CLEANED MORE OFTEN WHERE WEATHER CONDITIONS ARE UNUSUAL!

HOOD — Safety fastener **hook missing, won't work,** stencil missing. (Catch must be used when working under hood); supports **broken, missing.**

HORN ASSEMBLY—Mounting bracket loose, projectors loose, solenoid connectors loose, won't blow.

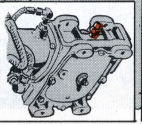
GENERATOR REGULATOR—Mountings loose, seals broken or missing, connections loose or dirty.

TURN SIGNAL DISTRIBUTION BOX — Connections loose.

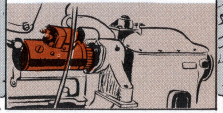
WIRES & CONNECTIONS— Damaged, loose, badly frayed or worn.

HYDRAULIC POWER CYLINDER— **Leaks**, loose mounting.

STEERING GEAR CASE— Wrong level (1 inch below filler plug or breather hole), breather vent plugged, spool valve leaks (grease on gear case & steering column).

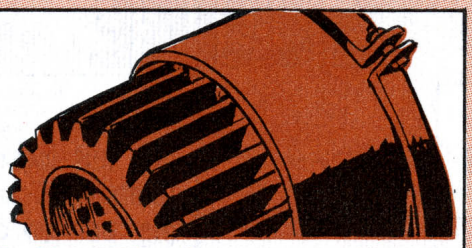


STARTER MOTOR— Bracket loose; connections loose, dirty, rusted; cable damaged, linkage loose, solenoid connector mounting loose.



MORE

INE SIDE



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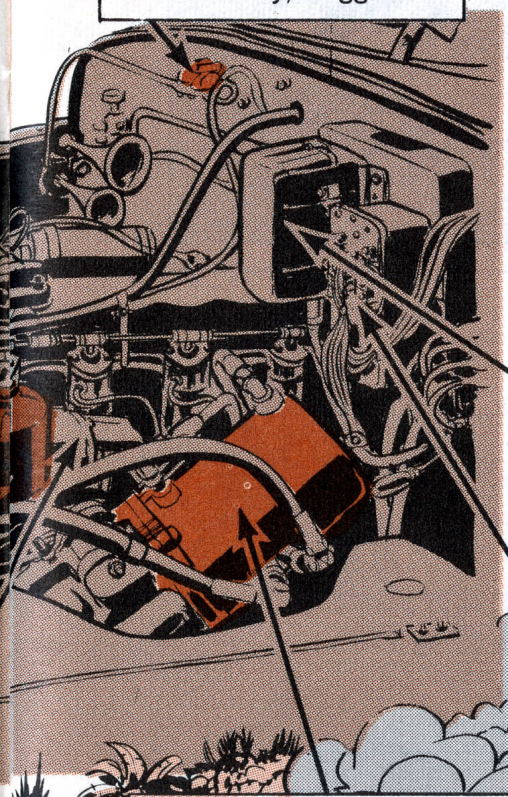

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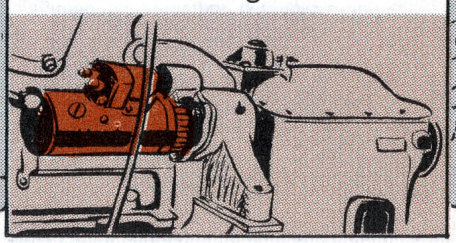

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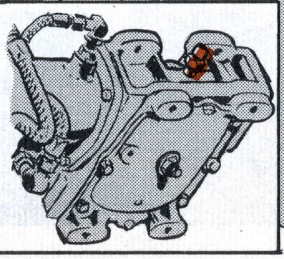


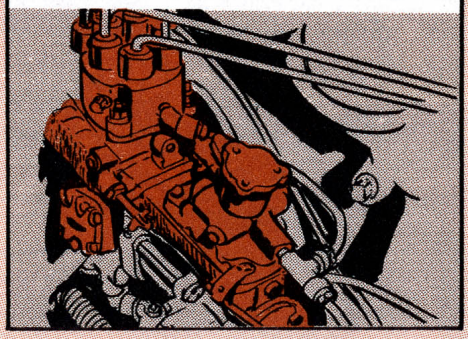
PS MORE

ENGINE

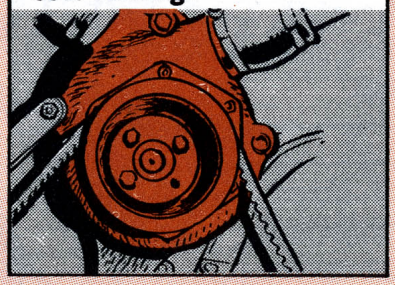
ENGINE GOVERNOR SEAL WIRE—Missing or broken.

ENGINE GROUND STRAP (5)—Missing, nut loose, falling to pieces, tooth-type (star) lockwasher missing, painted over, dirt caked up.

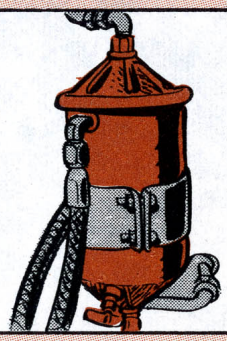
FUEL INJECTION PUMP (diesel, multifuel) — Loose connections, leaks, lines crushed, kinked, nozzles leaking.



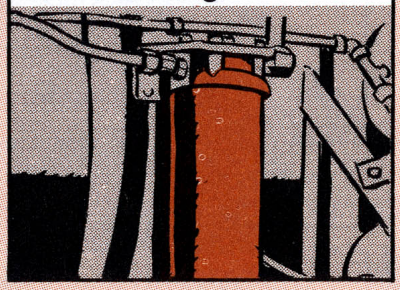
WATER PUMP — Gasket **leaks,** shaft loose, bearing seal **leaking.**



SECONDARY FUEL FILTER (diesel and multifuel) — To be drained if too much water or dirt found in primary filter.

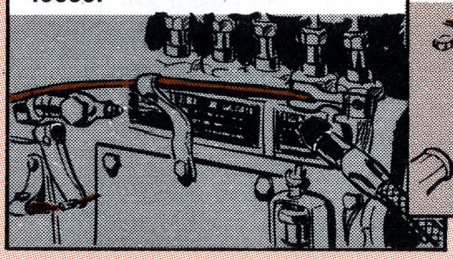


PRIMARY FUEL FILTER — Leaks, to be drained daily before starting.

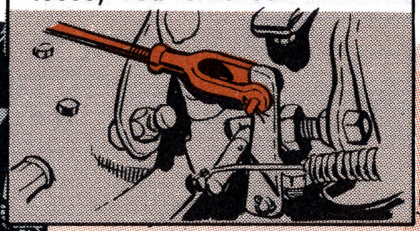


TEMP GAGE SENDING UNIT — Wire connectors loose, mounting loose.

FUEL SHUTOFF VALVES (diesel & multifuel) — Cables loose.



THROTTLE LINKAGE—Binds, loose, rod cracked.

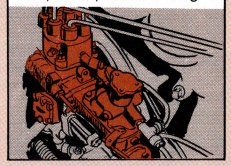


ENGINE

ENGINE GOVERNOR SEAL WIRE—Missing or broken.

ENGINE GROUND STRAP (5)—Missing, nut loose, falling to pieces, tooth-type (star) lockwasher missing, painted over, dirt caked up.

FUEL INJECTION PUMP (diesel, multifuel) — Loose connections, leaks, lines crushed, kinked, nozzles leaking.



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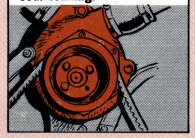

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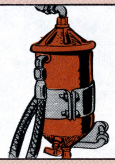

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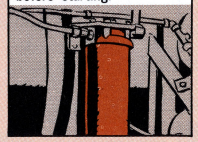

TEMP GAGE SENDING UNIT — Wire connectors loose, mounting loose.

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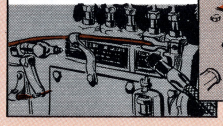

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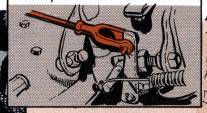
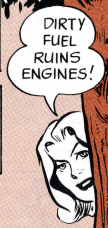


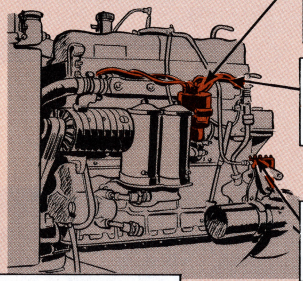
ENGINE

GASOLINE

DISTRIBUTOR & COIL ASSY (gas) — Dirty, cables loose, cover cracked, screws loose, cam lobe squeaks, primary wire loose.



SPARK PLUG CABLES (gas) — Loose, badly frayed or worn, nut stripped.

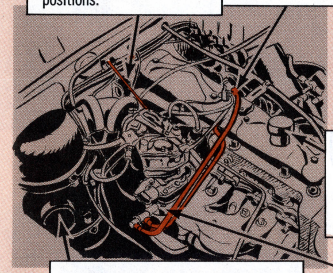


FUEL PUMP (gas) — **Leaks; loose;** fuel line **leaks, loose;** manual priming lever won't work.

CHOKE WIRE (gas) — Binds, broken, loose, adjusted wrong for open & close positions.

CARBURETOR LINES (gas) — **Leak, loose.**

FUEL FILTER (gas) — Drain daily in freezing climate. Mounting bolts loose, fuel lines loose or leaking, drain plug frozen, cap screw loose.



CRANKCASE BREATHER (gas) — Clogged, cap missing, chain missing, oil cup dirty, filter mesh dirty, mounting bracket cracked or loose.

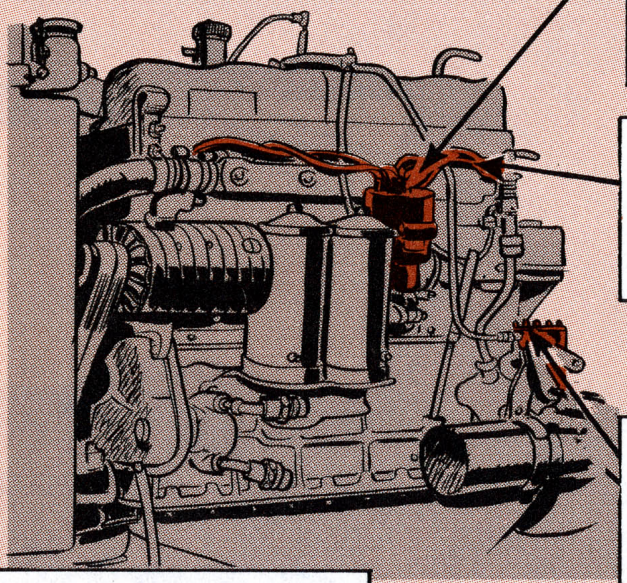
CARBURETOR AIR CLEANER (gas) — Dirt over ⅜ inch deep, oil cup empty (below bead level), hose leaks, not connected, cracked, collapsed; mounting bands loose, cracked; hose clamps loose.

CRANKCASE VENTILATING SHUTOFF VALVES (gas) — Broken, valve rusted shut or open (must be vertical unless fording), control wire broken.

MORE

ENGINE

GASOLINE



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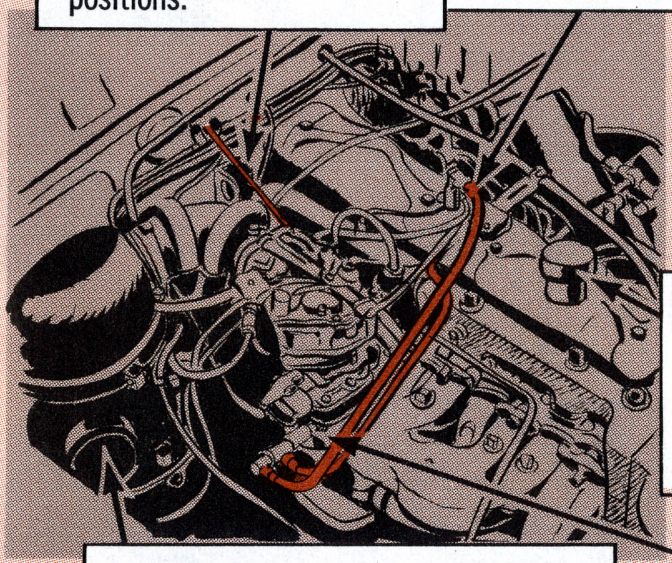

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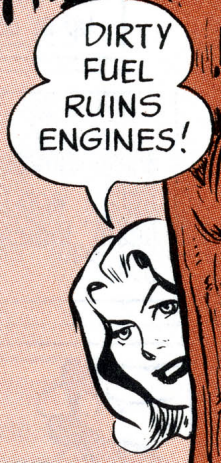

PS MORE

THE CAB

TURN SIGNAL LEVER — Won't work, won't hold in up or down position.

DASH WIPER CONTROL — Missing, loose, binds.

LIGHT SWITCHES — **Broken, won't work,** dimmer switch broken, dash lights won't work, headlight hi-beam indicator missing, painted over.

THROTTLE — Won't move freely, notches won't hold.

HAND CONTROL (BRAKE) VALVE (on tractor steering column) — Won't work.

CLUTCH — Wrong free-play adjustment (should be 1½ to 2 inches free travel), **no free-play,** return spring missing, or broken.

REAR WINDOW — Fogged **enough to hamper vision.**

CANVAS & FASTENERS — Canvas ripped, pulled away from pillar post channels; grab handles or lashing hooks broken, missing; fastener studs broken, missing.

DOORS — Window broken or cracked (interferes w/driver's vision); weather-stripping missing; glass loose in channel; won't open and close right, latch **won't work right** (driver's side); hinges loose, broken, missing; drain holes clogged.

THE CAB

TURN SIGNAL LEVER — Won't work, won't hold in up or down position.

DASH WIPER CONTROL — Missing, loose, binds.

WINDSHIELD CHANNELS — Rusted, glass loose.

WINDSHIELD—Crack longer than 2 inches, badly discolored, clouded enough to block vision (on **driver's side**).

LIGHT SWITCHES — **Broken, won't work,** dimmer switch broken, dash lights won't work, headlight hi-beam indicator missing, painted over.

WINDSHIELD WIPER MOTORS — Won't work, blades hit weather-stripping either side, missing, blade arm loose on shaft, rubber torn; air line leaks (operates slowly).

THROTTLE — Won't move freely, notches won't hold.

MANUAL WIPER CONTROLS — Bind, missing, loose.

HAND CONTROL (BRAKE) VALVE (on tractor steering column) — Won't work.

WINDSHIELD FOLDING KNOBS — Bind, loose, broken.

WINDSHIELD TILT ADJUSTER — Missing, rusted, won't open, clamping screw broken.

CLUTCH — Wrong free-play adjustment (should be 1½ to 2 inches free travel), **no free-play,** return spring missing, or broken.

WINDSHIELD INNER FRAME LOCK-HANDLE — Missing, rusted, won't work.

DATA & CAUTION PLATES — Missing, painted over, not readable.

MAP COMPARTMENT — Latch broken, pubs missing (TM-10, LO, SF 91, DD Form 518 . . . see vehicle data plate).

CHOKE CONTROL (gas) — Won't move freely.

EMERGENCY STOP CONTROL (diesel) — Won't move freely.

PRIMER PUMP KNOB (cold weather use only) — Leaks, binds.

REAR WINDOW — Fogged **enough to hamper vision.**

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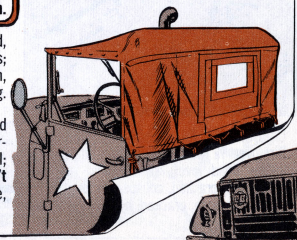
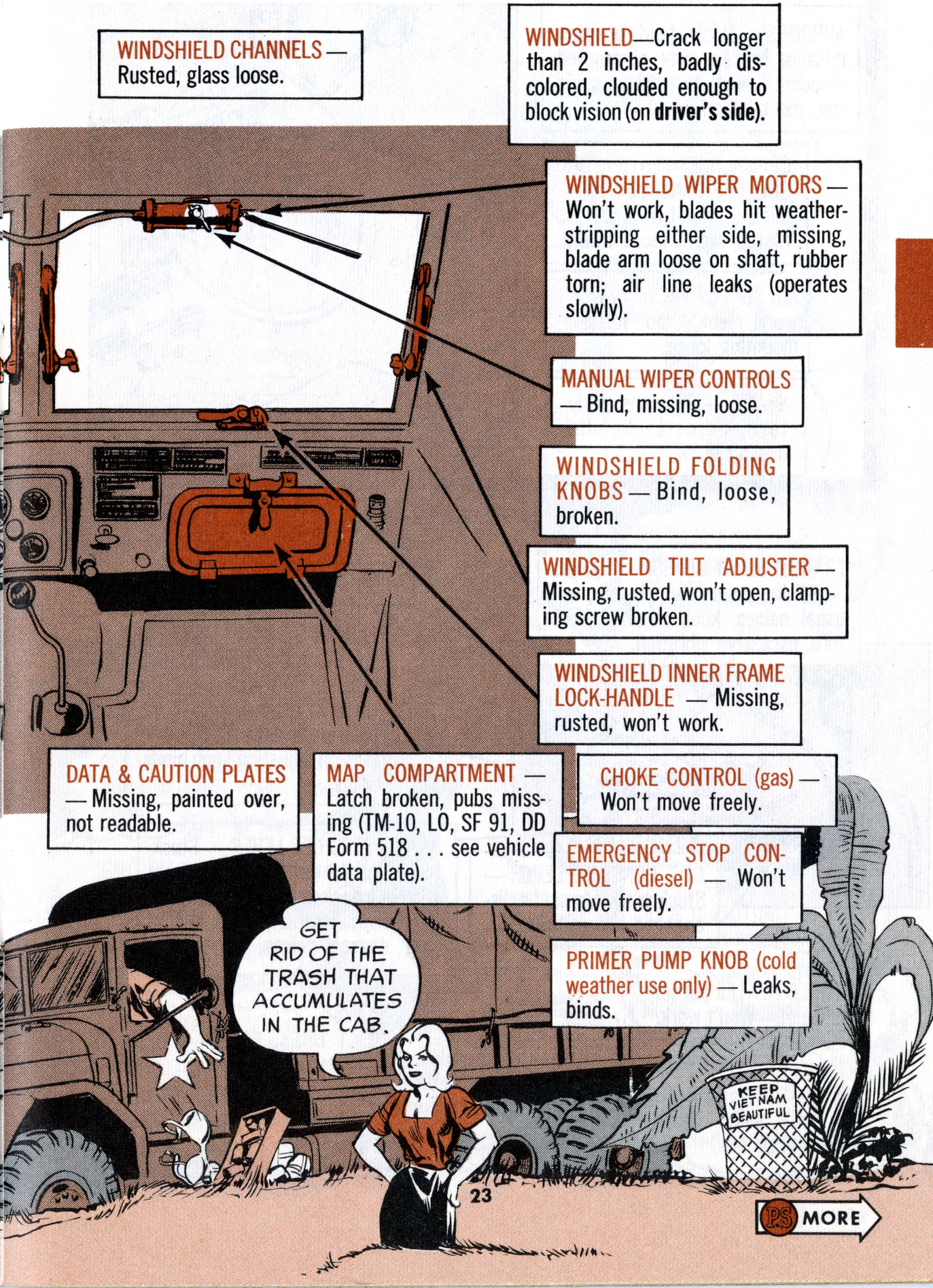


MORE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CHOKE CONTROL (gas) — Won't move freely.
EMERGENCY STOP CONTROL (diesel) — Won't move freely.
PRIMER PUMP KNOB (cold weather use only) — Leaks, binds.
GET RID OF THE TRASH THAT ACCUMULATES IN THE CAB.
KEEP VIETNAM BEAUTIFUL

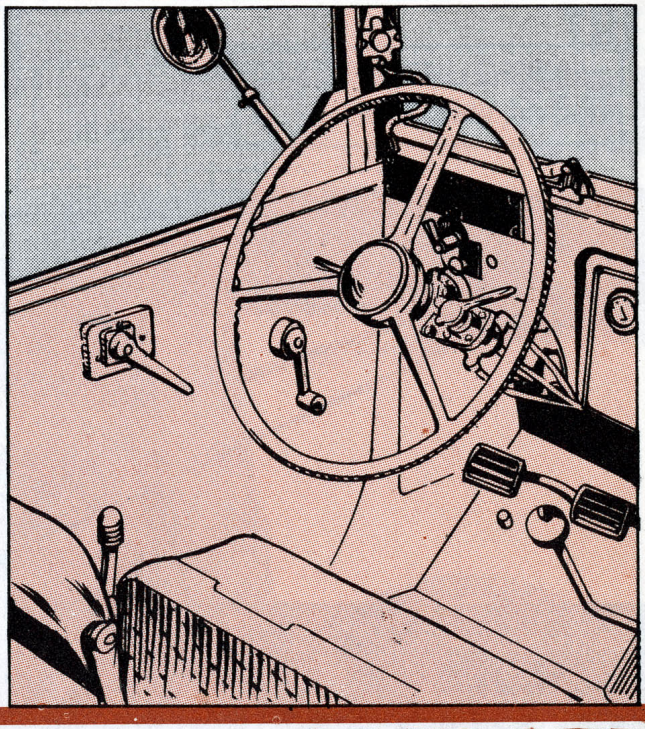
PS MORE

MIRRORS — Don't hold position, missing, broken, dirty, obstructed, clouded enough to block rear vision, can't be adjusted.

CRANKCASE VENTILATING SHUTOFF CONTROL (gas)— Missing, won't work valves, rusted, won't move freely.

AIR SUPPLY VALVE — Won't work, leak, cap missing, mounting loose.

SEATS — Cushions badly torn, adjuster handle doesn't work.

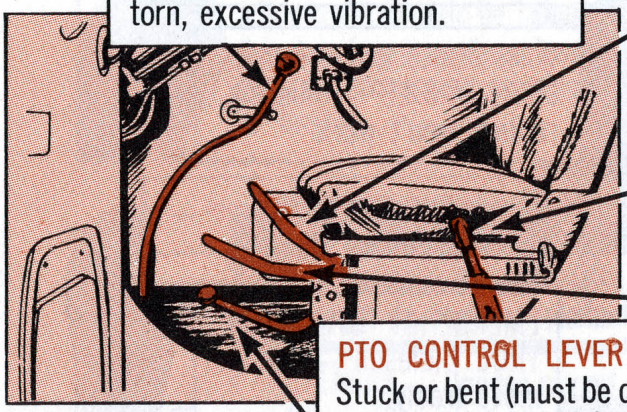


OPERATING

TRANSMISSION GEARSHIFT LEVER — **Sticks, jumps out of gear, unusual noises,** knob missing, boot torn, excessive vibration.

WINCH CONTROL LEVER

PARKING BRAKE LEVER — Too much free travel (should hold on hill with ⅓ lever travel in reserve, or stop vehicle in 60 feet at 10 mph); tension adjusting knob binds, drags.



TRANSFER SHIFT LEVER — Stuck, loose, bent, won't engage front wheels (check on slippery surface), excessive vibration, slips out of gear, **unusual noises.**

PTO CONTROL LEVER — Stuck or bent (must be disengaged before driving).

MANIFOLD HEATER (diesel & multifuel)—Won't work.

ANTI-DIESEL VALVE CONTROL (gas) — Not connected, won't stop engine, causes rough idle.

FUEL SHUTOFF VALVE CONTROL KNOB (diesel & multifuel) — Won't stay in STOP position, **won't stop engine.**

BRAKE PEDAL—**Won't work,** wrong adjustment (should be ¼-½ inch free travel), grabs, spongy, pulls, chatters, drags.

MIRRORS — Don't hold position, missing, broken, dirty, obstructed, clouded enough to block rear vision, can't be adjusted.

CRANKCASE VENTILATING SHUTOFF CONTROL (gas)— Missing, won't work valves, rusted, won't move freely.

AIR SUPPLY VALVE — Won't work, leak, cap missing, mounting loose.

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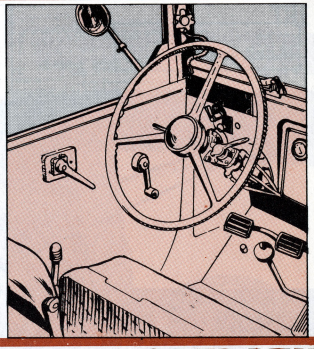


CAB

COWL VENTILATORS—Rusted, won't work, lever broken or bent.

DOOR HANDLES—**Missing, broken,** loose, door won't stay shut.

STEERING COLUMN — Loose, clamp broken.

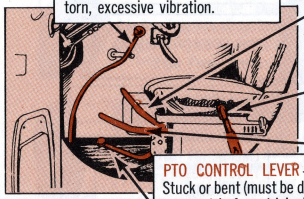
FLOOR — Bolts missing, floor boards bent or loose.

OPERATING CHECK

TRANSMISSION GEARSHIFT LEVER — **Sticks, jumps out of gear, unusual noises,** knob missing, boot torn, excessive vibration.

WINCH CONTROL LEVER

PARKING BRAKE LEVER — Too much free travel (should hold on hill with ⅓ lever travel in reserve, or stop vehicle in 60 feet at 10 mph); tension adjusting knob binds, drags.



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MANIFOLD HEATER (diesel & multifuel)—Won't work.

ANTI-DIESEL VALVE CONTROL (gas) — Not connected, won't stop engine, causes rough idle.

FUEL SHUTOFF VALVE CONTROL KNOB (diesel & multifuel) — Won't stay in STOP position, **won't stop engine.**

BRAKE PEDAL—**Won't work,** wrong adjustment (should be ¼-½ inch free travel), grabs, spongy, pulls, chatters, drags.

LOSS OF POWER AND BLACK SMOKE ON MULTIFUEL ENGINES PROBABLY MEANS DIRTY AIR AND FUEL FILTERS.

ACCELERATOR PEDAL — **Sticks,** loose, boot torn or missing.

HORN BUTTON — Won't work, loose.

STEERING WHEEL — Loose, badly bent, core **broken.**

FRONT WINCH CONTROL LEVER — Sticks, jumps out of gear, excessive vibration, unusual noises.

AIR FILTER INDICATOR (diesel & multifuel) — Red plunger visible, lock won't work.

ENGINE — **Unusual noises,** stalls, **misfires, overheats.**

HEATER (if present) — Not working, leaks, hoses not connected to defroster.

CLUTCH — Chatters, slips, grabs, sluggish, drags, gears clash.

IGNITION SWITCH — **Broken,** loose.

STARTER PEDAL (gas) — **Won't work.**

START BUTTON (diesel & multifuel) — **Won't work.**

AIR PRESSURE BUZZER — Does not sound below 65 PSI w/ignition on.

MORE

CAB

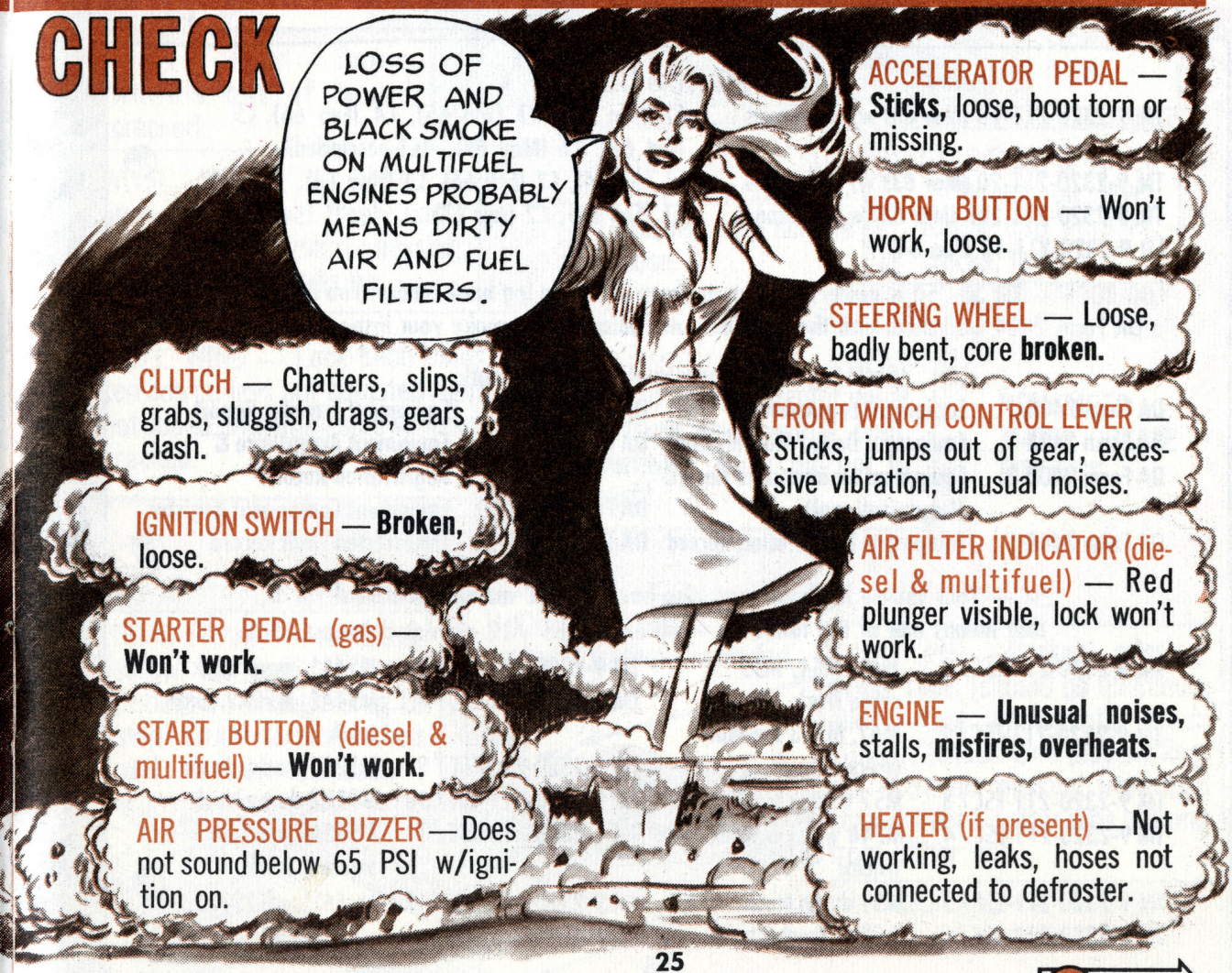
COWL VENTILATORS—Rusted, won't work, lever broken or bent.

DOOR HANDLES—**Missing, broken,** loose, door won't stay shut.

STEERING COLUMN — Loose, clamp broken.

FLOOR — Bolts missing, floor boards bent or loose.

CHECK



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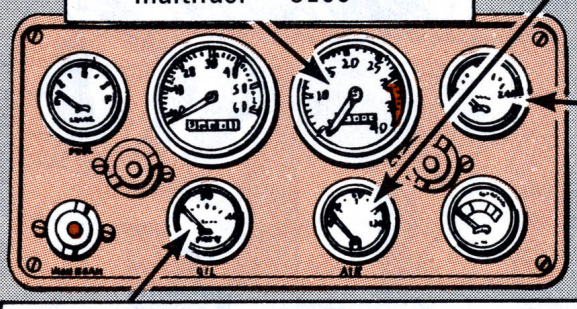


TACHOMETER — Exceeds max allowable RPM . . .

idle:
- gas = 400-450
- diesel = 550-600
- multifuel = 600-650

governed:
- gas = 2750-2800
- diesel = 2100-2200
- multifuel = 3100

AIR PRESSURE GAGE — **Wrong pressure** (should be between 115-125 PSI after 10 minutes at 1000 RPM), compressor **won't kick in at 105 PSI, pressure fades** (stop engine w/pressure at 125 PSI, should be no drop within 1 minute, operate brake to reduce pressure).

TEMPERATURE GAGE — Gas should be 160°-180°, Diesel & Multifuel 180°-200° F normal operating range.

OTHER INSTRUMENTS & GAGES—Don't work right, lenses broken, cracked, clouded.

OIL PRESSURE GAGE — Below Normal (should be 15 PSI at idle, 50 PSI at 1500-1800 RPM), doesn't work.

PUBLICATIONS

TM 9-2320-211-10 (Mar 63) w/5 changes .....C2 (Jun 64), C3 (Jan 65), C4 (Feb 66), C5 (Oct 66), C6 (May 67), (C1 rescinded).

TM 9-2320-211-20 (Mar 63) w/3 changes .....C1 (Jul 64), C2 (Feb 66), C3 (Nov 66).

TM 9-2320-211-20P (Mar 63) w/2 changes.....C1 (Sep 64), C2 (Apr 67).

LO 9-2320-211-12 (Jun 64)

LOG BOOK — TM 38-750 is guide for forms to keep in vehicle log book binder. You'll also need a DA Form 2404 worksheet and the vehicle's own TM and LO to make your inspection.

Basic Log book binder contains these forms:

DA Form 2408 .....Equipment Log Assembly

DA Form 2408-1.....Equipment Daily/Monthly Log

DA Form 2408-3.....Equipment Maintenance Record (Organizational)

DA Form 2408-5.....Equipment Modification Record

DA Form 2408-7.....Equipment Transfer Report

DA Form 2408-8.....Equipment Acceptance & Registration Record

DA Form 2408-10....Equipment Component Register

DA Form 2408-14....Uncorrected Fault Record

ESC — Your vehicle log book must also have the ESC manual published for it. That means one of the following — all except the /12 are dated August 1966.

TM 9-2320-211-ESC/1 ....M41, M54, M55 cargo truck

TM 9-2320-211-ESC/2.....M62, M543 medium wrecker truck

TM 9-2320-211-ESC/3.....M52 tractor truck

TM 9-2320-211-ESC/4.....M246 wrecker truck tractor

TM 9-2320-211-ESC/5.....M51 dump truck

TM 9-2320-211-ESC/6.....M52A1 tractor truck

TM 9-2320-211-ESC/7.....M54A1 cargo truck

TM 9-2320-211-ESC/8.....M54A2, M55A2 cargo truck

TM 9-2320-211-ESC/9.....M52A2 tractor truck

TM 9-2320-211-ESC/10....M51A2 dump truck

TM 9-2320-211-ESC/11....M543A2 medium wrecker truck

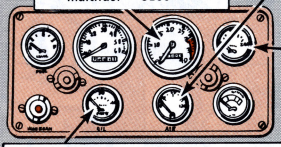
TM 9-2320-211-ESC/12 (Sep 66).....M291A2, M291A2C, M291A2D expansible van truck WO/W

TACHOMETER — Exceeds max allowable RPM . . .

idle:
- gas = 400-450
- diesel = 550-600
- multifuel = 600-650

governed:
- gas = 2750-2800
- diesel = 2100-2200
- multifuel = 3100

AIR PRESSURE GAGE — **Wrong pressure** (should be between 115-125 PSI after 10 minutes at 1000 RPM), compressor **won't kick in at 105 PSI, pressure fades** (stop engine w/pressure at 125 PSI, should be no drop within 1 minute, operate brake to reduce pressure).



TEMPERATURE GAGE — Gas should be 160°-180°, Diesel & Multifuel 180°-200° F normal operating range.

OTHER INSTRUMENTS & GAGES—Don't work right, lenses broken, cracked, clouded.

OIL PRESSURE GAGE — Below Normal (should be 15 PSI at idle, 50 PSI at 1500-1800 RPM), doesn't work.

PUBLICATIONS

TM 9-2320-211-10 (Mar 63) w/5 changes .....C2 (Jun 64), C3 (Jan 65), C4 (Feb 66), C5 (Oct 66), C6 (May 67), (C1 rescinded).
TM 9-2320-211-20 (Mar 63) w/3 changes .....C1 (Jul 64), C2 (Feb 66), C3 (Nov 66).
TM 9-2320-211-20P (Mar 63) w/2 changes.....C1 (Sep 64), C2 (Apr 67).
LO 9-2320-211-12 (Jun 64)

LOG BOOK — TM 38-750 is guide for forms to keep in vehicle log book binder. You'll also need a DA Form 2404 worksheet and the vehicle's own TM and LO to make your inspection.

Basic Log book binder contains these forms:

DA Form 2408 .....Equipment Log Assembly
DA Form 2408-1.....Equipment Daily/Monthly Log
DA Form 2408-3.....Equipment Maintenance Record (Organizational)
DA Form 2408-5.....Equipment Modification Record
DA Form 2408-7.....Equipment Transfer Report
DA Form 2408-8.....Equipment Acceptance & Registration Record
DA Form 2408-10....Equipment Component Register
DA Form 2408-14....Uncorrected Fault Record

ESC — Your vehicle log book must also have the ESC manual published for it. That means one of the following — all except the /12 are dated August 1966.

TM 9-2320-211-ESC/1 ....M41, M54, M55 cargo truck
TM 9-2320-211-ESC/2.....M62, M543 medium wrecker truck
TM 9-2320-211-ESC/3.....M52 tractor truck
TM 9-2320-211-ESC/4.....M246 wrecker truck tractor
TM 9-2320-211-ESC/5.....M51 dump truck
TM 9-2320-211-ESC/6.....M52A1 tractor truck
TM 9-2320-211-ESC/7.....M54A1 cargo truck
TM 9-2320-211-ESC/8.....M54A2, M55A2 cargo truck
TM 9-2320-211-ESC/9.....M52A2 tractor truck
TM 9-2320-211-ESC/10....M51A2 dump truck
TM 9-2320-211-ESC/11....M543A2 medium wrecker truck
TM 9-2320-211-ESC/12 (Sep 66).....M291A2, M291A2C, M291A2D expansible van truck W/O/W

TM 9-2320

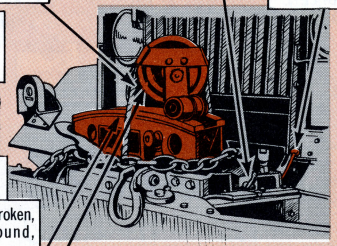
FRONT WINCH

CABLE — Dirty, dry, shredding (Over 20% of strands broken), rusty, kinked, loosely wound on drum, cross wound, secured wrong on drum, laid wrong.

DRUM LOCK POPPET LATCH — Binds, not adjusted right (plunger should completely disengage from drum in unlocked position).

DRUM CLUTCH LEVER — Binds, not lubed, engaged w/winch not operating (if stubborn, should be disengaged by relaxing drum tension w/PTO lever).

CAUTION PLATES — Not legible, painted over, missing.



END BEARING HOUSING — Wrong oil level, leaks.

CHAIN — Broken, hook missing, not stowed right.

WRECKERS ONLY

ROLLERS — Bind, not lubed.

TROLLEY TRACK — Broken, wheels out of round, cracked.

SWIVEL SHEAVE & FRAME — Loose, won't travel freely under tension, cable guard missing, screws loose or missing.

END FRAME & SUPPORT BRACKETS — Cracked, cap screws loose.

GEAR CASE & COVER — Wrong oil level, loose cap screws, cracks, leaks.

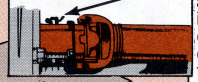
LEVEL WIND — Lock knob binds, tension pulleys not adjusted right, not lubed, mounting screws loose, cracked.

AUTOMATIC BRAKE — Won't hold in neutral (weight equal to truck on downhill pull), overheats (cover too hot to touch).

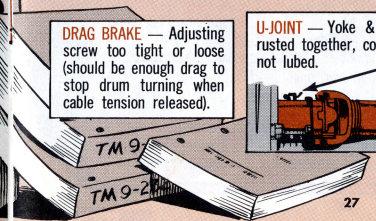
REMEMBER THOSE GREASE FITTINGS.

DRAG BRAKE — Adjusting screw too tight or loose (should be enough drag to stop drum turning when cable tension released).

U-JOINT — Yoke & winch rusted together, corroded, not lubed.



SHEAR PIN — **Broken, missing, wrong type,** (should be aluminum alloy — test w/magnet), frozen in shaft (check free play w/finger), extra pin missing from map compartment, cotter pins missing from either end.



MORE

FRONT WINCH

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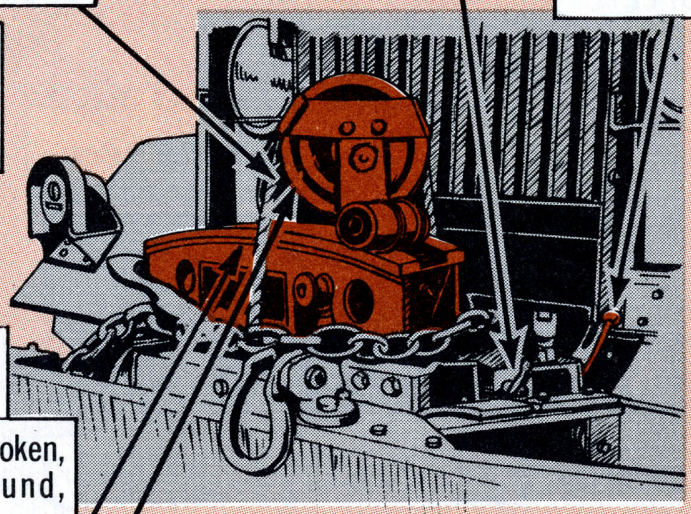

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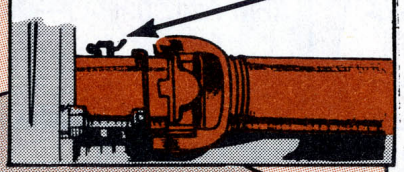

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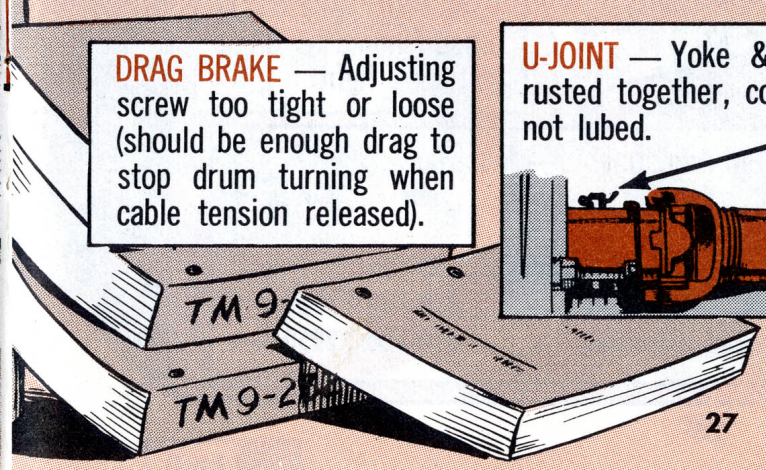
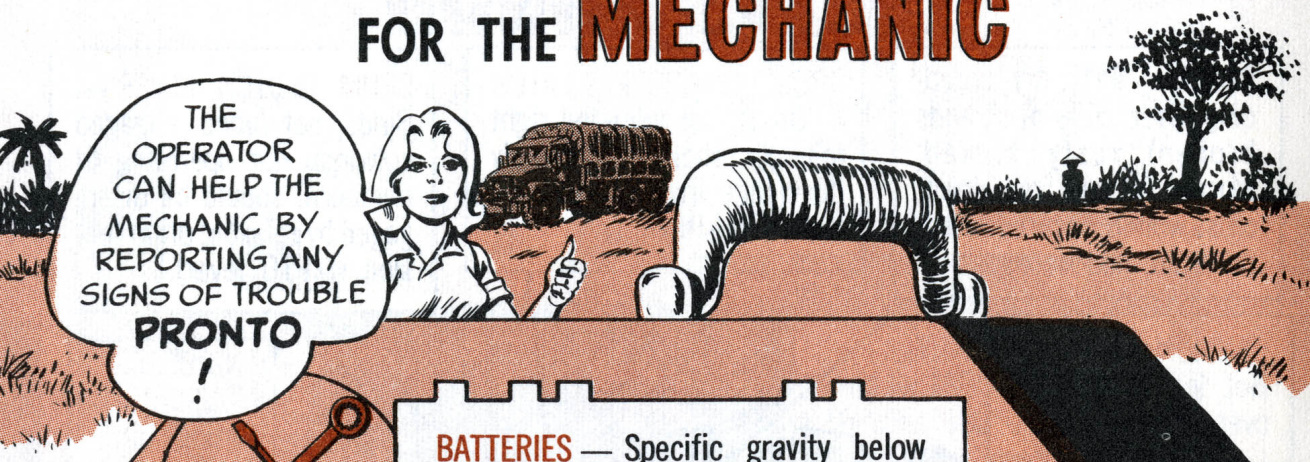


MORE

FOR THE MECHANIC



BATTERIES — Specific gravity below 1.225 at 80°F (check w/hydrometer). In tropics, electrolyte not diluted to 1.200-1.225 for full charge or specific gravity below 1.135 (Hydrometer corrected for 80°F) (TM 9-6140-200-15, page 39), white dot missing.

STEERING — **Pulls, wanders, shimmies,** too much free play, leaks, hard to steer.

SPARK PLUGS — Loose, corroded, not all same heat range (all hot plugs = FSN 2920-835-7724 or cold plugs = FSN 2920-752-4258) (TM 9-8638, page 13).

TRANSFER SHIFT LINKAGE — Not properly adjusted.

WINCH AUTOMATIC BRAKE — Adjusting bolt binds, rust inside case (remove inspection cover).

WHEEL BEARINGS — **Loose, bad,** not lubed right (check lube every "S" service).

GEAR CASES LUBE LEVEL (Transmission, Transfer, Differentials): should be ½ inch below filler plug when cold; level w/plug when hot.

CARBURETOR ADJUSTMENT (gas) — Idles rough, too fast or too slow; does not accelerate right.

BRAKE LININGS & SHOES — Worn, loose, not working right.

BRAKE MASTER CYLINDER — Level too low (should be ½ inch below top).

IGNITION — Poorly timed (should be timed w/timing light).

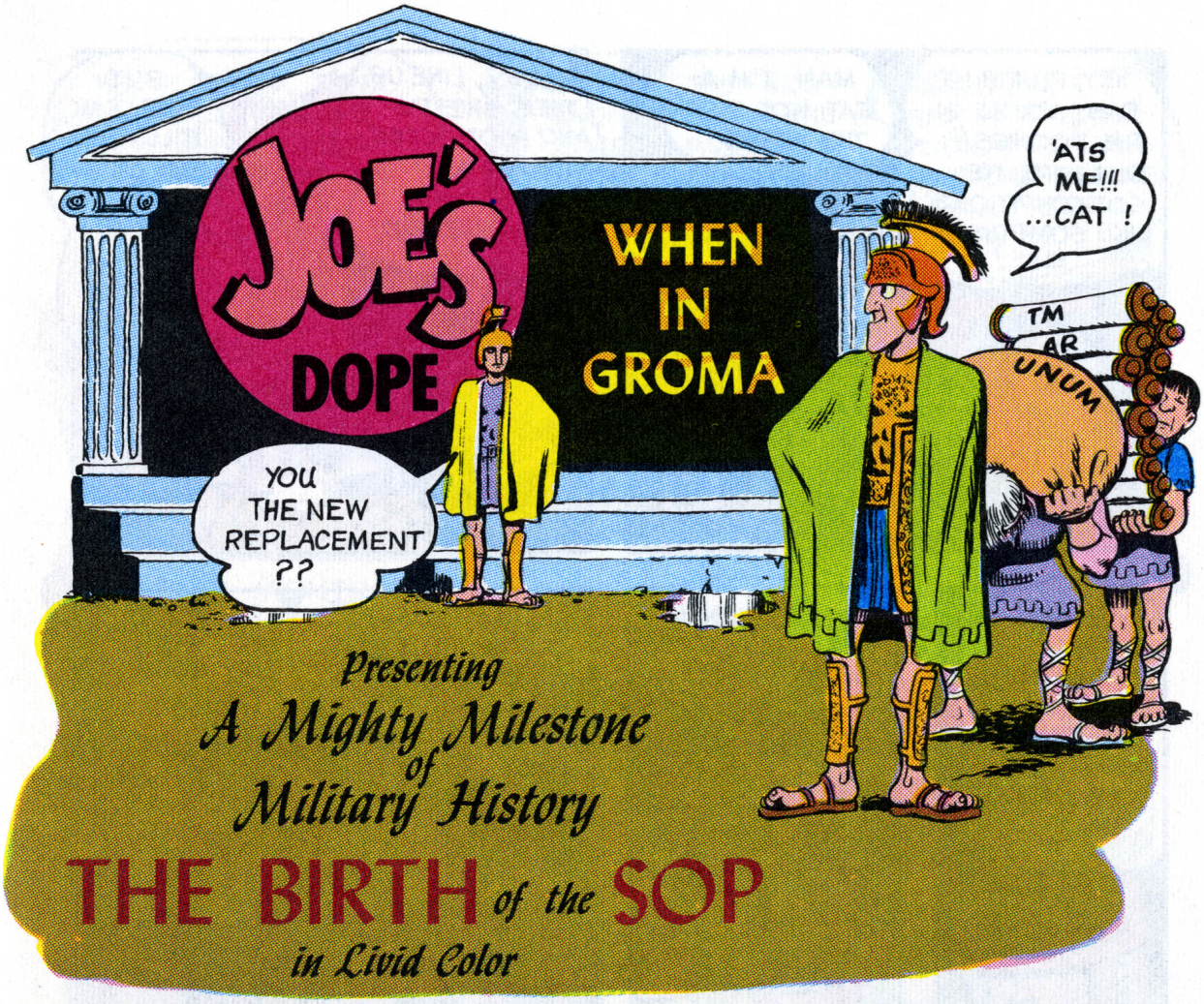
DISTRIBUTOR BREAKER POINTS (gas) — Points pitted, wrong gap (should be 0.022 inch), wrong spring tension (should be 17-21 oz).

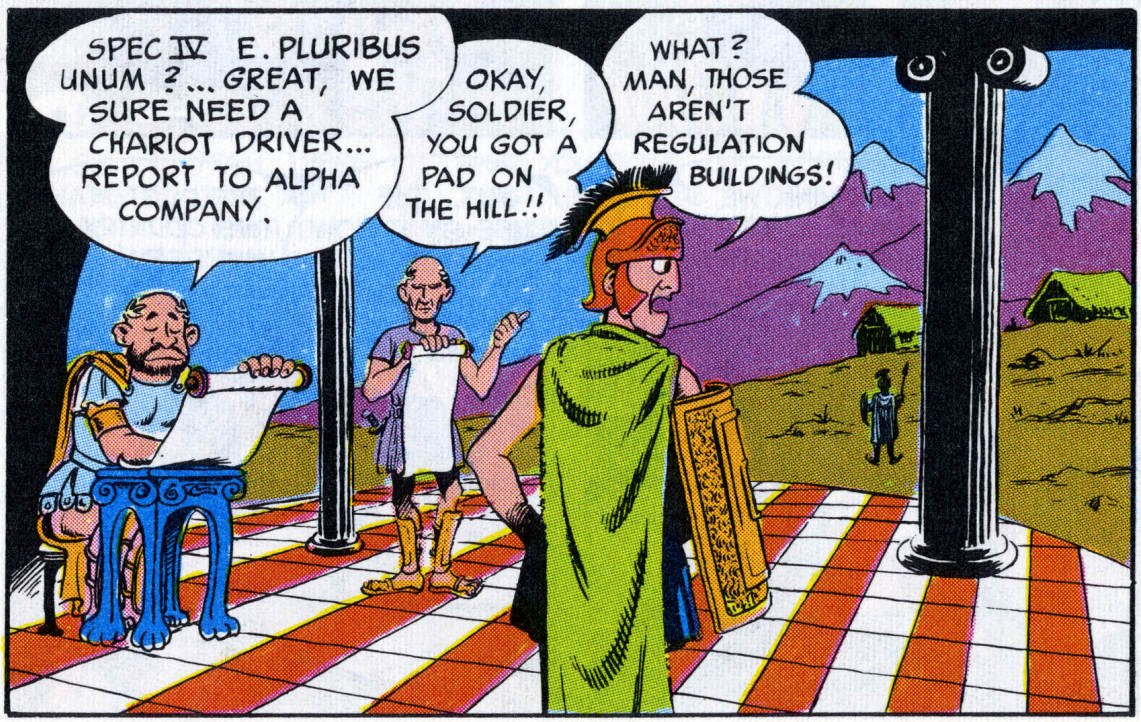
RPM Adjustments — Must be . . .

Engine	Idle	Governed (No Load)
LDS 465-1 & -1A (multifuel)	650-700	3100 max
ENDT 673 (diesel)	650-700	2200 max
R-6602 (gasoline)	650-700	2950 max

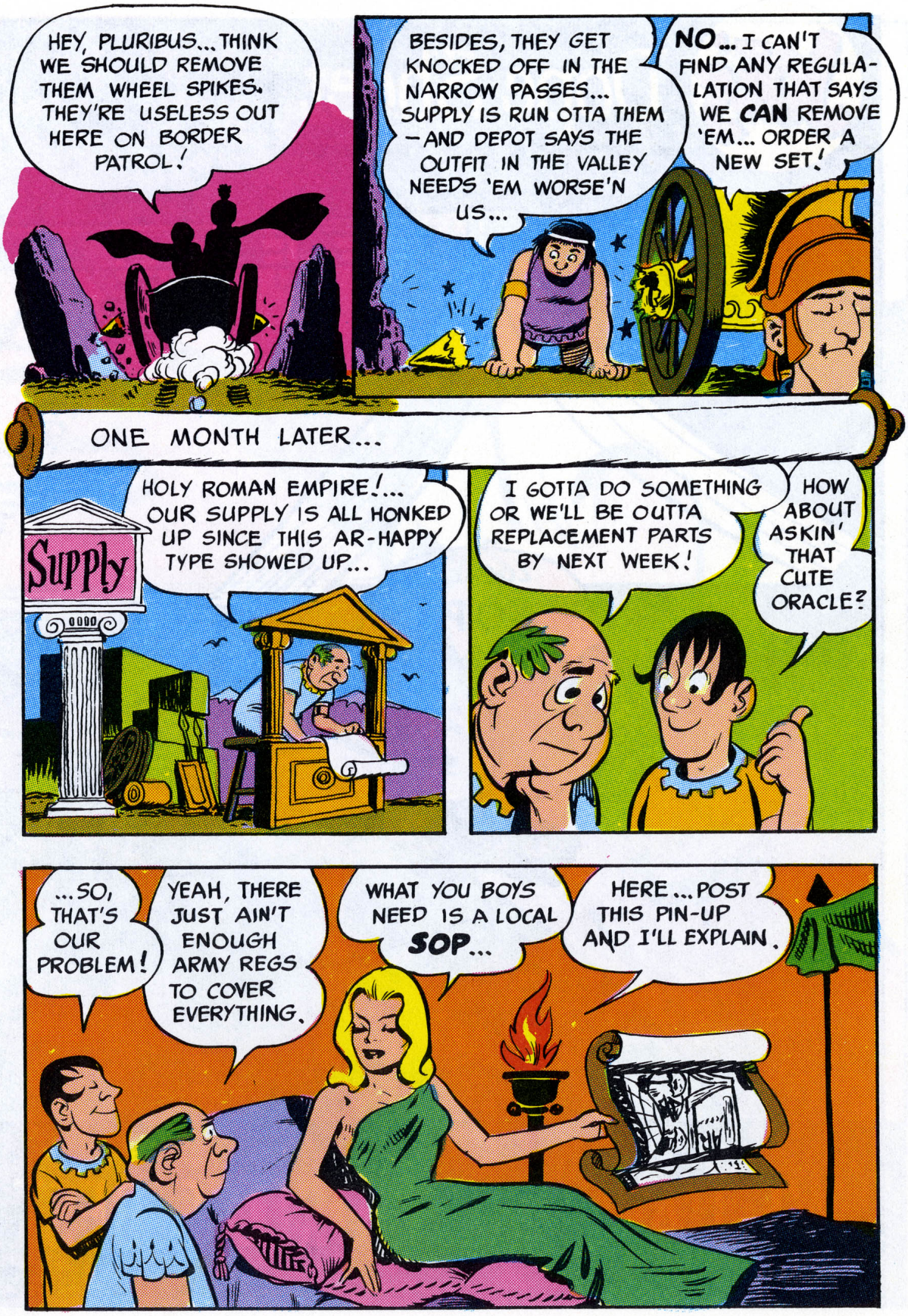
ANTIFREEZE — **Not enough protection** (in season).

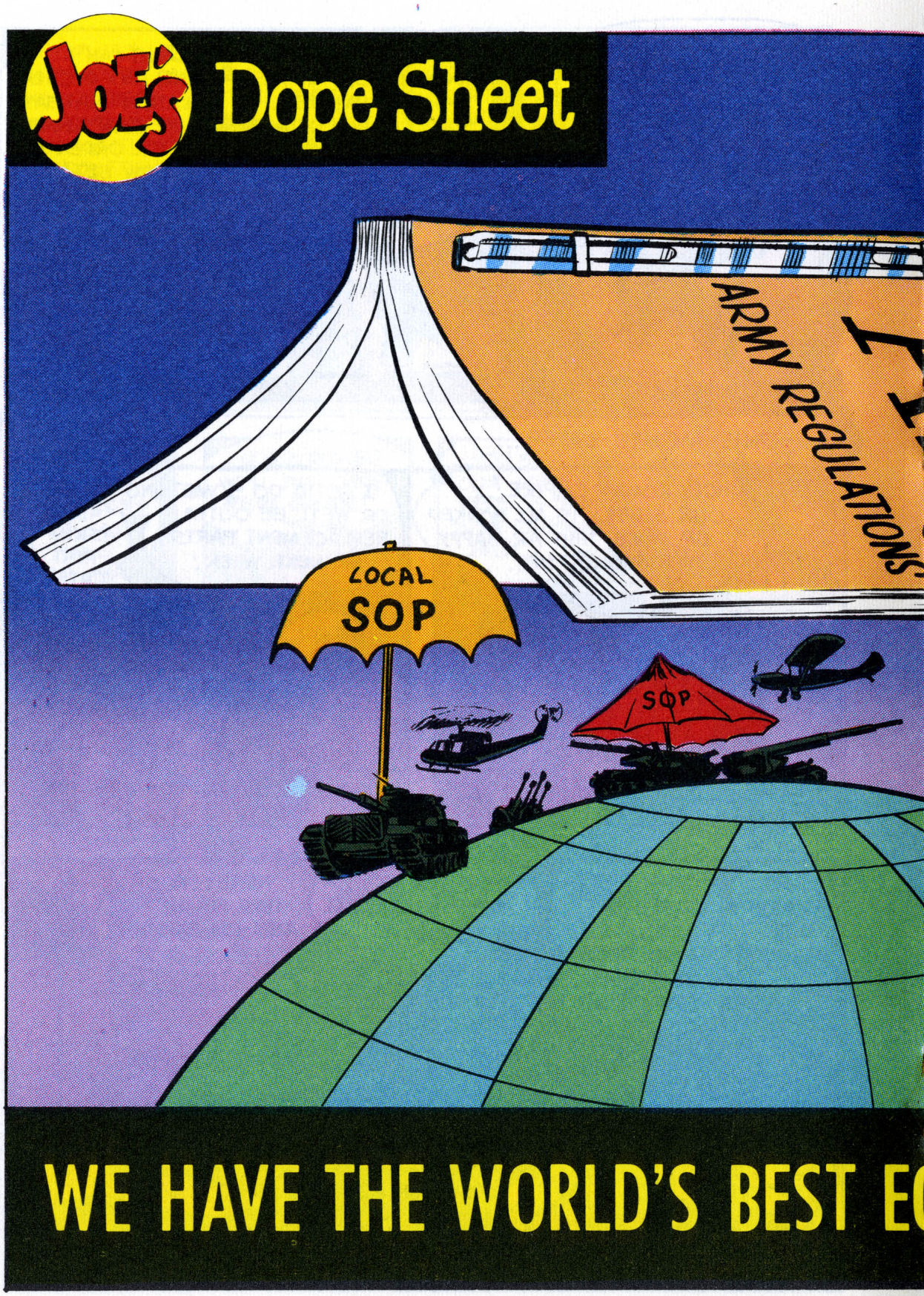
END


JOE'S DOPE
WHEN IN GROMA
YOU THE NEW REPLACEMENT ??
'ATS ME!!! ...CAT !
TM AR UNUM
Presenting
A Mighty Milestone of Military History
THE BIRTH of the SOP
in Livid Color


SPEC IV E. PLURIBUS UNUM ?... GREAT, WE SURE NEED A CHARIOT DRIVER... REPORT TO ALPHA COMPANY.
OKAY, SOLDIER, YOU GOT A PAD ON THE HILL!!
WHAT? MAN, THOSE AREN'T REGULATION BUILDINGS!

HEY, PLURIBUS BABY, YOU'RE IN THE BOONIES!! OUT HERE WE GOT CONDITIONS LIKE SOMETHING ELSE!
MAN, I'M A CAT WOT DIGS THE REGS.
WHERE'LL I PUT THIS?
OKAY, LINE UP THEM SHIELDS AND FOOTLOCKER– CENTER AND TWO INCHES FROM THE PAD!
BUT THAT LEAK, IT'LL RUIN THE GEAR. LET'S MOVE IT OVER A COUPLE OF INCHES.
SORRY! ARMY REGULATIONS DON'T SAY ANYTHING ABOUT WHAT TO DO ABOUT THAT!
ARX
...IF IT'S RUINED WE'LL JUST ORDER NEW GEAR!
YOU SICK MAN? OUR SUPPLY OUT HERE IS THINNER THAN CAESAR'S HAIR...
I'M A CAT WOT DIGS THE REGS. IT STAYS!
LET'S CHOW UP!
Next day
ER... THINK WE OUGHTA LUBE OUR VEHICLE, PLURIBUS?
HMM... NOT ACCORD-ING TO THE LO.
BUT... THE LUBE ON IT NOW IS SO FULLA CRUD IT'S GRINDING THE SHAFTS DOWN...
THE DUST IN THIS COUNTRY IS MURDER!!
...ORDER NEW SHAFTS. THE REGS SAY LUBE MONTHLY AND THAT'S THAT!!

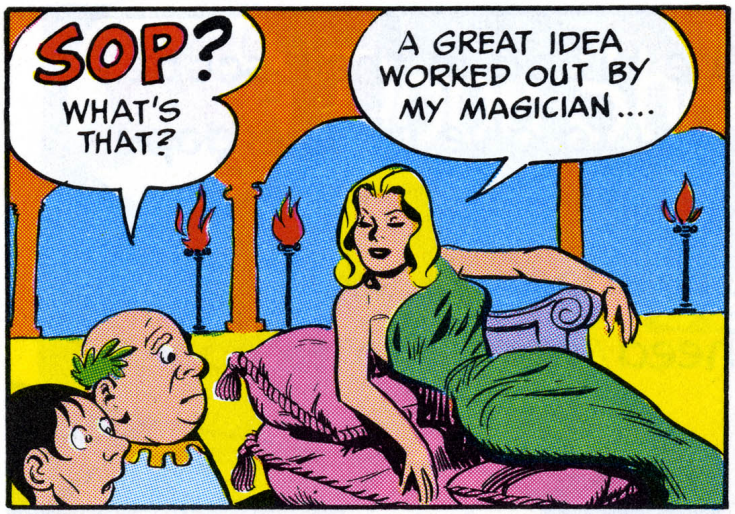

HEY, PLURIBUS... THINK WE SHOULD REMOVE THEM WHEEL SPIKES. THEY'RE USELESS OUT HERE ON BORDER PATROL!
BESIDES, THEY GET KNOCKED OFF IN THE NARROW PASSES... SUPPLY IS RUN OTTA THEM — AND DEPOT SAYS THE OUTFIT IN THE VALLEY NEEDS 'EM WORSE'N US...
NO... I CAN'T FIND ANY REGULA-LATION THAT SAYS WE CAN REMOVE 'EM... ORDER A NEW SET!
ONE MONTH LATER...
Supply
HOLY ROMAN EMPIRE!... OUR SUPPLY IS ALL HONKED UP SINCE THIS AR-HAPPY TYPE SHOWED UP...
I GOTTA DO SOMETHING OR WE'LL BE OUTTA REPLACEMENT PARTS BY NEXT WEEK!
HOW ABOUT ASKIN' THAT CUTE ORACLE?
...SO, THAT'S OUR PROBLEM!
YEAH, THERE JUST AIN'T ENOUGH ARMY REGS TO COVER EVERYTHING.
WHAT YOU BOYS NEED IS A LOCAL SOP...
HERE... POST THIS PIN-UP AND I'LL EXPLAIN.



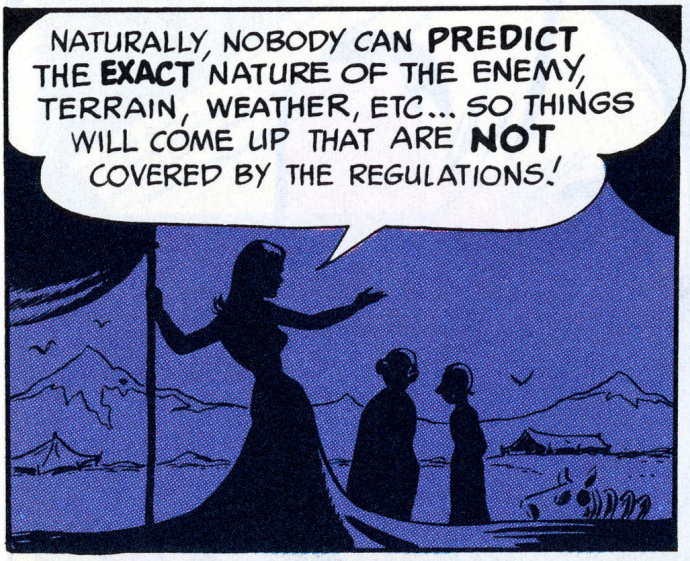
IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR B

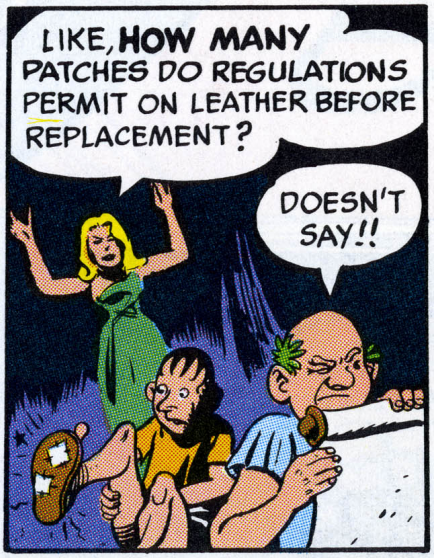
IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

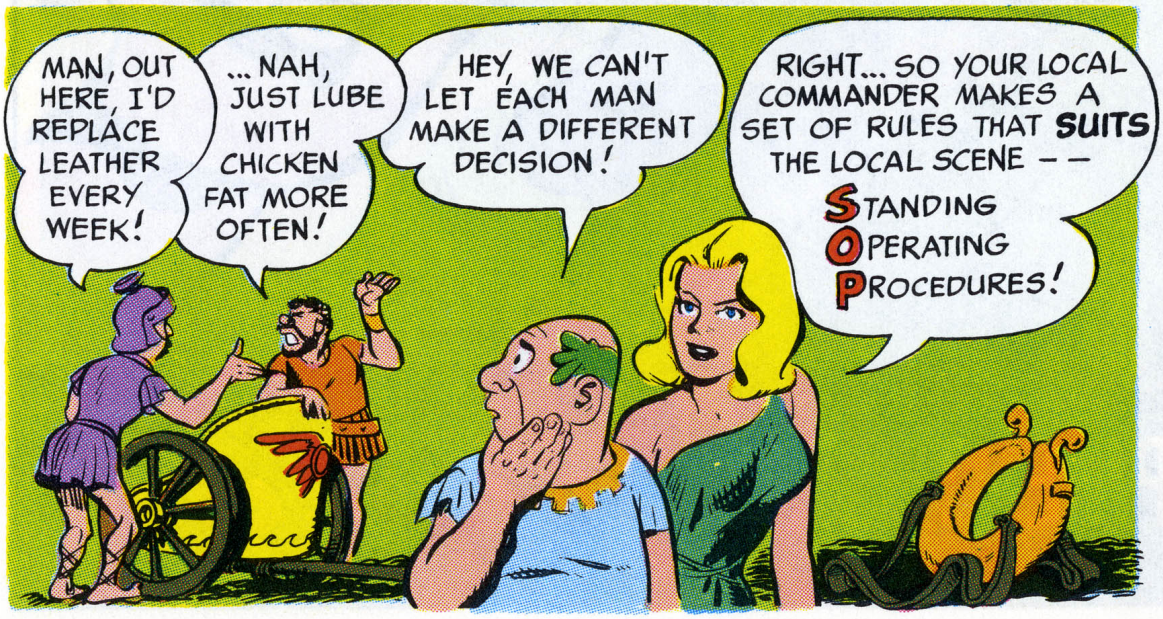
ULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.


SOP?
WHAT'S THAT?
A GREAT IDEA WORKED OUT BY MY MAGICIAN....

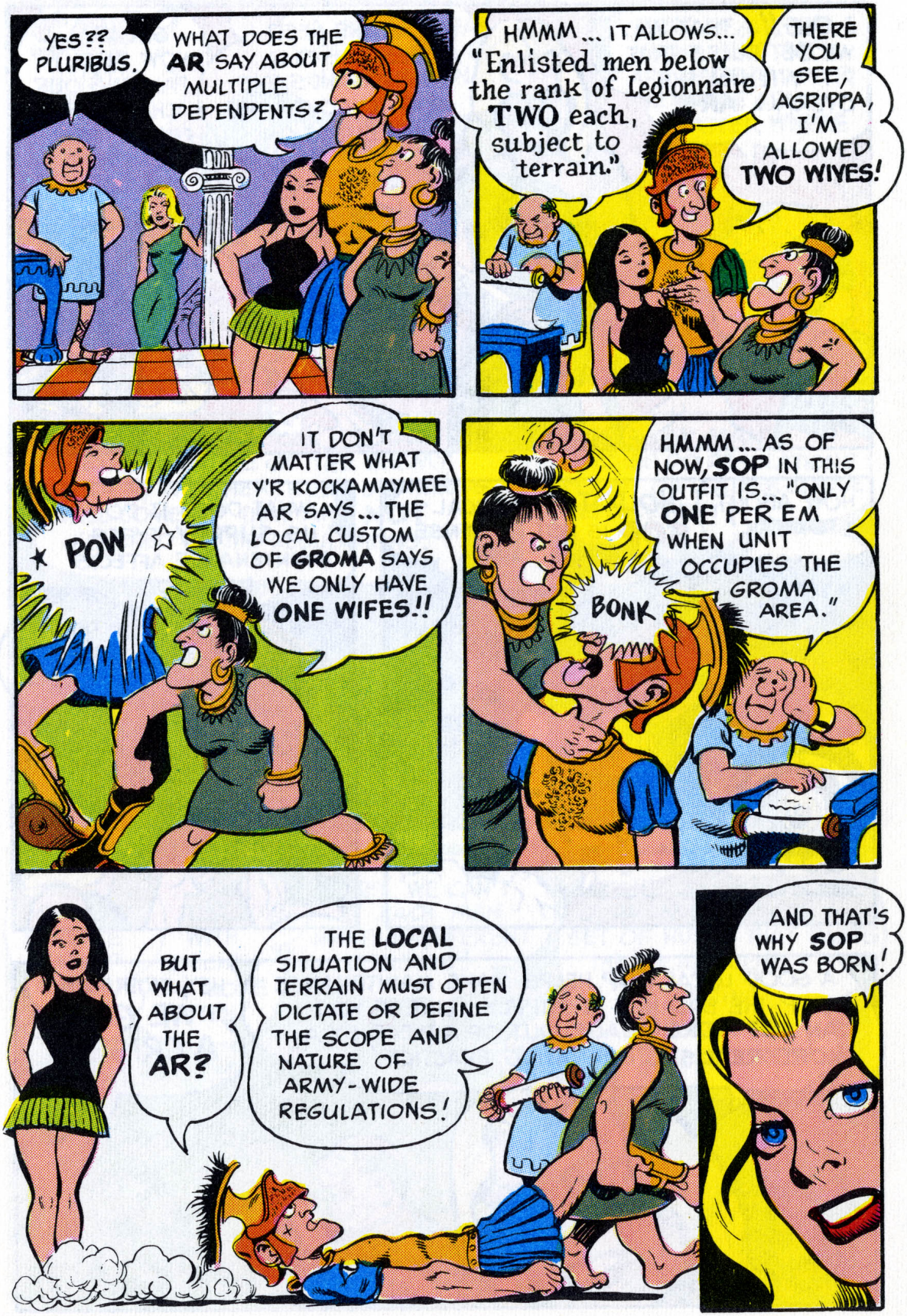
FIRST OF ALL, YOU KNOW THAT AR'S ARE MADE TO COVER THE WHOLE ARMY-- NO MATTER WHERE IT IS!!


NATURALLY, NOBODY CAN PREDICT THE EXACT NATURE OF THE ENEMY, TERRAIN, WEATHER, ETC... SO THINGS WILL COME UP THAT ARE NOT COVERED BY THE REGULATIONS!


LIKE, HOW MANY PATCHES DO REGULATIONS PERMIT ON LEATHER BEFORE REPLACEMENT?
DOESN'T SAY!!


MAN, OUT HERE, I'D REPLACE LEATHER EVERY WEEK!
...NAH, JUST LUBE WITH CHICKEN FAT MORE OFTEN!
HEY, WE CAN'T LET EACH MAN MAKE A DIFFERENT DECISION!
RIGHT... SO YOUR LOCAL COMMANDER MAKES A SET OF RULES THAT SUITS THE LOCAL SCENE -- S TANDING O PERATING P ROCEDURES!

I DIG!! ...THAT WAY WE GET RULES THAT FIT WITHIN THE OVERALL AR!
SO, AS THE NEED ARISES, THE OLD MAN EXPANDS THE SOP TO COVER THE NEW SITUATION.
GREAT! HOW ABOUT PAINTING OUR CHARIOTS PINK... FITS THE LOCAL DECOR.
AR IX IV
HOW ABOUT A FOX-TAIL!
HOLD IT! THE LOCAL SOP IS NOT A LICENSE TO GO "APE"!
WHAT DOES IT DO FOR US SUPPLY TYPES... MAINTENANCE AFFECTS US, TOO!!
THE SOP IS FOR YOU.
A GOOD LOCAL SOP HELPS MAKE MAINTENANCE KEEP THE BALANCE IN SUPPLY... LIKE IF YOU CAN GET MORE USAGE OUT OF A PIECE BY A MORE REALISTIC OPERATING PRACTICE!
HEY, TRIBUNUS! WE GOT A CRISIS!


YES?? PLURIBUS.
WHAT DOES THE AR SAY ABOUT MULTIPLE DEPENDENTS?
HMMM... IT ALLOWS... "Enlisted men below the rank of Legionnaire TWO each, subject to terrain."
THERE YOU SEE, AGRIPPA, I'M ALLOWED TWO WIVES!
POW
IT DON'T MATTER WHAT Y'R KOCKAMAYMEE AR SAYS... THE LOCAL CUSTOM OF GROMA SAYS WE ONLY HAVE ONE WIFES!!
BONK
HMMM... AS OF NOW, SOP IN THIS OUTFIT IS... "ONLY ONE PER EM WHEN UNIT OCCUPIES THE GROMA AREA."
BUT WHAT ABOUT THE AR?
THE LOCAL SITUATION AND TERRAIN MUST OFTEN DICTATE OR DEFINE THE SCOPE AND NATURE OF ARMY-WIDE REGULATIONS!
AND THAT'S WHY SOP WAS BORN!

PUBS

A selected list of recent publications of interest to Organizational Maintenance Personnel. This is a list compiled from recent Adjutant General's Distribution Center Bulletins. For complete details see DA Pam 310-4 and Ch 5 (10 Feb 67) and DA Pam 310-6 and Ch 3 (April 67).

TECHNICAL MANUALS

TM 5-3695-214-15, Mar, Saw, Chain: Pneum Mtr Drvn, 90 Lb Oper Pres; 24 In Cut; 1 Man; Bar Frame; W/Handle (Remington Arms Mdl 6P).

TM 5-4110-210-14, Mar, Refrig Unit, Mech, Panel Type: 5,000 BTU/Hr Cap, for Portable 150 Cu Ft Refrig: Type I, GED, (Thermo King Mdl Q5G), Type II, Elec Mtr Drvn (Thermo King Mdl Q5EM2).

TM 5-4110-210-25P, May, Refrig Unit, Mech Type: 5,000 BTU/Hr Cap, for Portable 150 Cu Ft Refrig: Type I, GED, (Thermo King Mdl Q5G), Type II, Elec Mtr Drvn (Thermo King Mdl Q5EM2).

TM 5-4320-237-15, Apr, Pump, Centrifugal: GED; 50 GPM, 100-Ft Head, Flam Liquid, Bulk Transfer (Barnes Mdl-QM-2-28002).

TM 5-6115-351-25P, May, Gen Set, GED: Air Cooled; 7.5 KW, 28 V, DC, 2 Wire, Wheel Mtd, Winterized (Atlas Polar Mdl MCIII).

TM 5-6125-209-15, Apr, Motor Gen Power Supply: Gen—60 KW, AC, 120/208 V, 240/416 V, 3 Phase, 4 Wire Svc, 400 Cyc: DC Component Output, 28 V, 10 Amp: Motor Input, AC, 120/208 V, 240/416 V, 3 Phase, 60 Cyc, Skid Mtd (John R. Hollingsworth Co. Mdl JHMX60G).

TM 5-6665-203-12, Apr, Detecting Set, Mine: Aural and Visual Indication, 24 V, DC, Oper Pwr; Mutual Inductance, Phase-Selective Bridge Type Detector, Truck Mtd (Wurlitzer Mdl WC-324).

MODIFICATION WORK ORDERS

MWO 9-2815-210-30/1, Mar, Truck, 5-Ton, 6x6, Cargo, M54, M55; Chassis, M61, M63, M139D; Dump: M51; Van, Expansible: M292; Wrecker: M543; 2½ Ton, 6x6, Cargo: M35A2, M36, Chassis: M44, M45, M46; Repair Shop M185; Tank, Gas: M49C; Tank, Water: M50; Tractor: M52; Van: M109A1—Replace Cylinder Head Gaskets and Valve Spring Seats.

MWO 10-8340-211-30/1, Apr, Tent, Gen Purpose, Medium, and Tent Liner, Medium, Mod of Tent and Liner to Prevent Liner from Contacting Stovepipes of Tent Heating Stoves.

MWO 11-6230-219-30/1, May, Searchlight, DC, 28-V, 100-Amp, Xenon Type, Infrared and Visible, Varo Mfg Co. Mdl 9910.

MWO 55-1510-205-30/1, May, UH-1.

MWO 55-1520-209-30/9, May, CH-47.

MWO 55-1520-209-30/22, May, CH-47.

MWO 55-1520-209-30/40, May, CH-47.

TECHNICAL BULLETINS

TB 34-9-249, May, Marking of Mil Vehicles.

TB 55-1500-206-20/4, Jun, UH-1A-1B and UH-1D.

TB 55-1500-206-30/1, Jun, UH-1A-1B-1C-1D.

TB 55-1500-302-25, Jun, All F/W, R/W-Components to be Installed, Retained W/Uninstalled A/C Eng.

TB 55-1520 202 20/4, Jun, CH-34.

TB 55-1520-205-20/7, May, CH-21.

TB 55-1520-206-30/2, Jun, OH-23.

TB 55-1520-209-20/21, Jun, CH-47.

TB 55-1520-214-20/11, Jun, OH-6.

TB 55-2800-200-30/1, Apr, UH-1A-1B, OV-1.

MISCELLANEOUS

DA Cir 725-11, May, Removal of Components from Assemblages and Sets of Equip.

DA Cir 750-20, Jun, Implementation Instructions for changes to TAERS.

LO 5-3695-214-15, Mar, Saw, Chain: Pneum Mtr Drvn, 90 Lb Oper Pressure; 24-In Cut: 1 Man; Bareframe; W/Handle (Remington Arms Mdl 6P).

LO 5-3805-237-12-1, -2, -3, May, Grader, Road, Motorized: DED 13,300 Lb Pres at Blade; 12 Ft Blade; 6 Wheels, 4 Driving, 2 Steerable; Leaning Front Wheels; W/Scarifier (Letourneau-Westinghouse Mdl 440 HA) W/Eng GM Mdl 4057.

LO 5-3810-232-12-1, Mar, Crane, Wheel Mtd, 20 Ton (American Hoist & Derrick 2380).

LO 5-4930-207-12, May, Lube and Servicing Unit, Pwr Oper: Trailer Mtd: 23 CFM Compressor, Recip, Gas Drvn, (Henry Spen Mdl 901765-1).

LO 5-6115-345-12, Mar, Gen Set, Dsl Eng: 15 KW, 60 Cyc, AC, Single Phase, 3 Wire, 120/240 V; Single Phase, 2 Wire, 120 V; 3 Phase, 3 Wire, 120 V, 3 Phase, 4 Wire, 120/208-240/416 V; Convertible to 12.5 KW, 50 Cyc, 3 Phase, 4 Wire, 120/208/240/416 V; Non-Winterized (Bogue Mdl 6113) (SF-15-MD) W/Hercules Eng Mdl D198-ER.

LO 5-6665-203-12, May, Detecting Set, Mine: Aural and Visual Indication; 24 V, DC, Oper Power; Mutual Inductance, Phase-Selective, Bridge-Type Detector, Truck Mtd (Wurlitzer Mdl WC-324).

LO 10-3520-202-24, May, Shoe Repair Shop, Trailer Mtd, 2 Wheel (York Astro Mdl D8700541).

SB 740-1930-97-E02, May, Barges and Lighters, Cargo Barge, Deck Cargo, Nonpropelled, Steel, 570 Ton, 100 Ft, Design 7005.

ELECTRONIC PUBS GO PINPOINT

You'd better hurry with that order for Army electronics equipment manuals so you won't miss any because all of those pubs dated after 15 Sep 67 will be on pinpoint.

The new pinpoint forms are DA Form 12-50, Requirements for Army Radiac and Fixed Radio Equipment Publications, and DA Form 12-51, Requirements for Army Field Radio Equipment Publications.

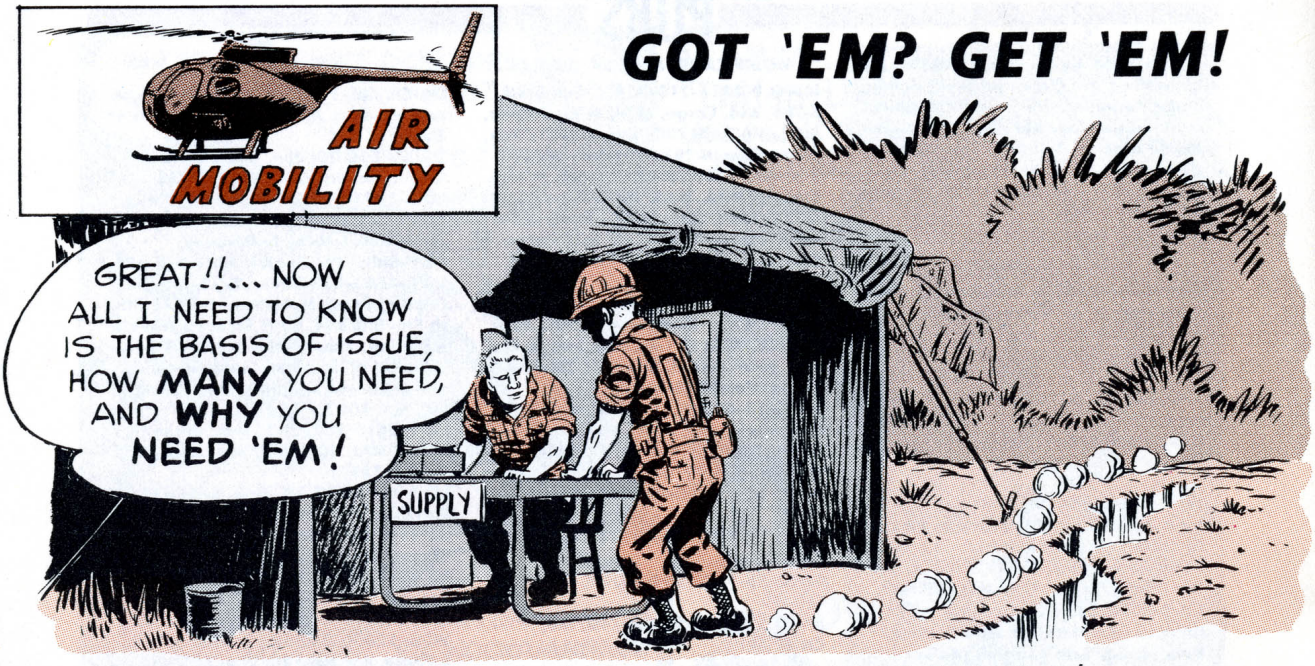
If you're ordering on both of these forms, staple them together and mail them to the U.S. Army Adjutant General Publications Center, 1655 Woodson Road, St. Louis, Mo. 63114. Only one copy needs to be submitted through channels to AG.

DA Circular 310-34 (May 67), gives you the go ahead with these new pinpoint forms.

Appendix I to SB 700-20 gives you the LIN's for your electronic type numbers so you can get the nomenclatures.

FILTER/SEPARATORS . . .

GOT 'EM? GET 'EM!



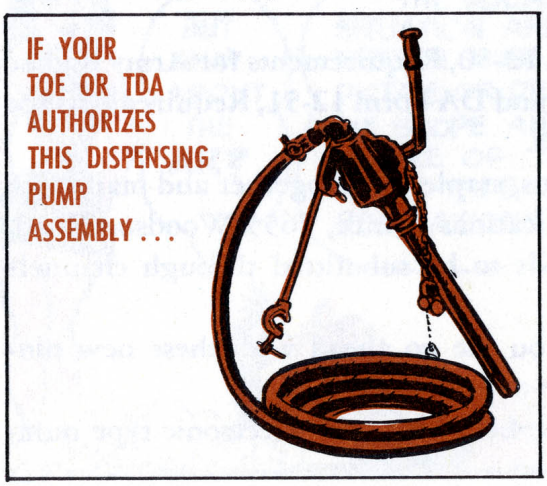
You've heard what a good job those 15-GPM liquid fuel filter/separators, FSN 4330-051-0666, are doing. Now, the question is — Does your unit rate one?

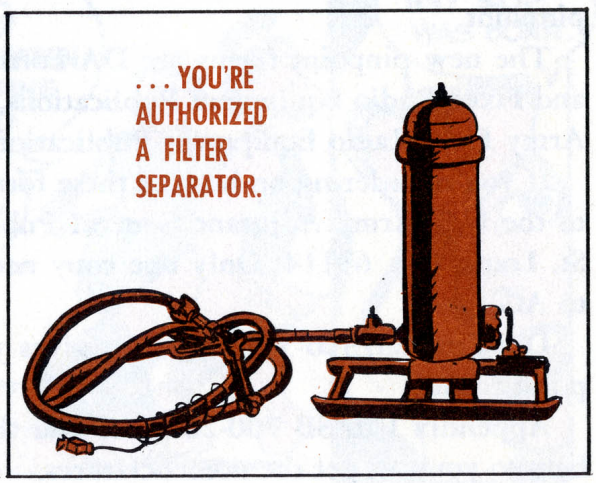
Filter/separators, listed in Fed Cat C4320/30-IL-A (1 May 66) are issued as a Class II item to units refueling light aircraft and helicopters, and as a Class IV item to units with special refueling problems.

So, whether you can get one depends on your TOE or TDA. If you're authorized Dispensing Pump Assembly, hand-operated piston type, FSN 4930-276-0087, you got it made. You can request a filter/separator for each pump assembly.

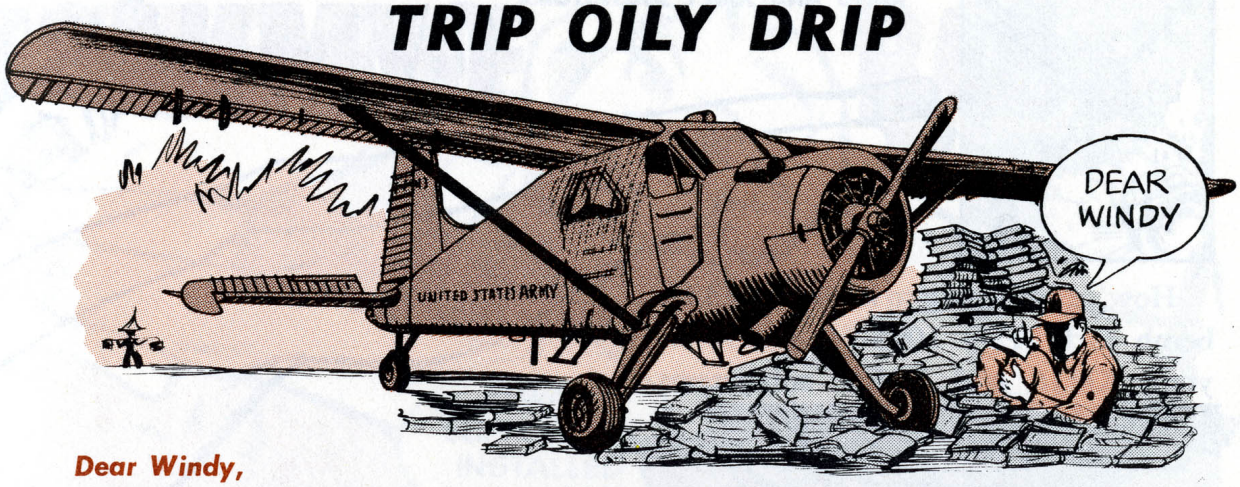
Here's the paper route you take to get this fuel-cleaning gem:

Buck a letter to your headquarters asking that this item be included in your TOE or TDA. Your authority is the emergency poop in AR 310-49 (23 May 66) and AR 310-31 (13 Apr 66). Be sure you eye AR 310-34 for guidance and use of the emergency provisions.





TRIP OILY DRIP



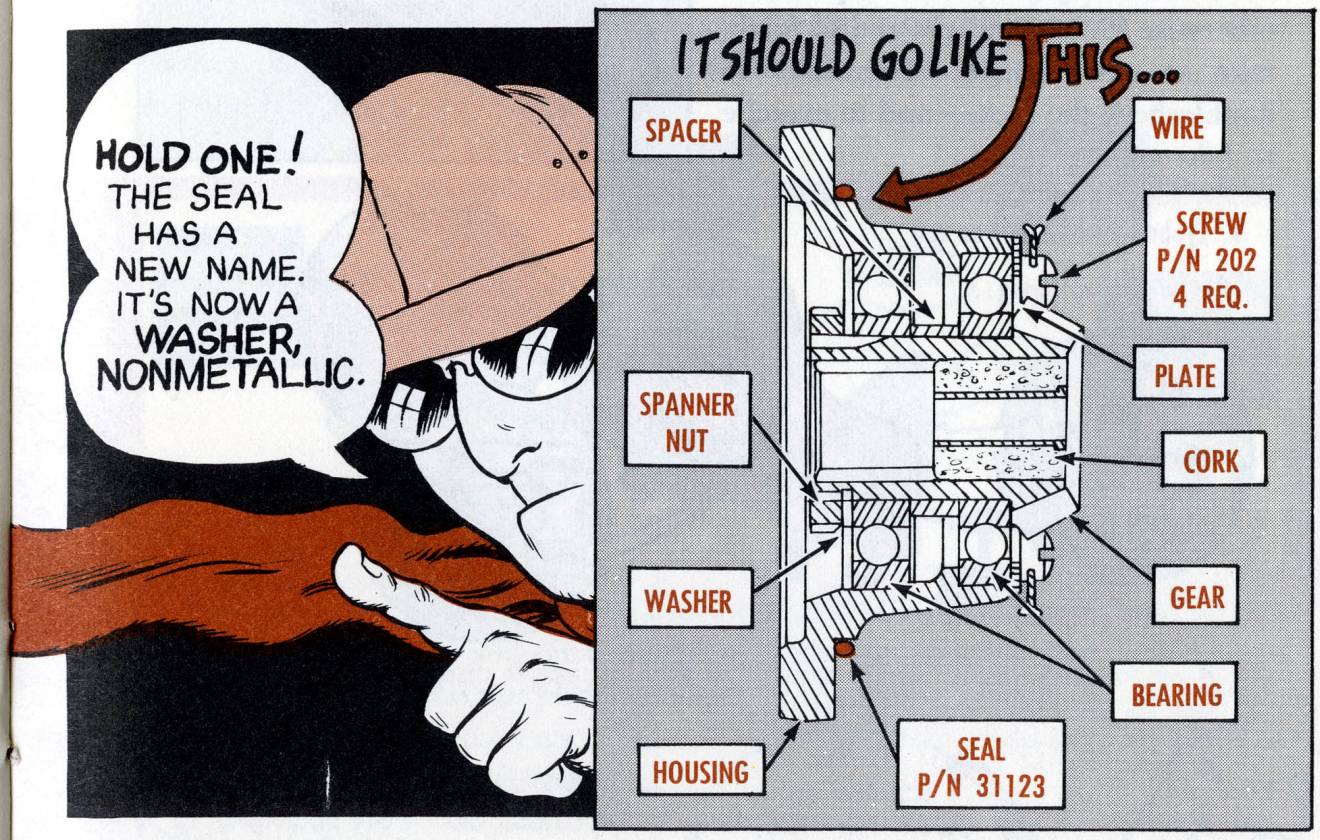
Dear Windy,

We can't find the FSN for the oil-stopping seal that goes between the generator drive-assembly-housing flange and the rear case-mounting pad of our Beaver engine. We can't find a "stack up" that shows how it should go, either. Can you help us?

SFC L. J. N.

Dear L. J. N.,

You're looking for P/N 31123, FSN 5330-290-4850. It's listed in TM 55-1510-203-20P (May 67) fig 80, index 23.



The seal goes on the housing and shaft gear assembly.

One more point. Your 20P shows only one bearing, but modifications have added a second one.

Windy

XM16 AND XM21 SUBSYSTEMS:

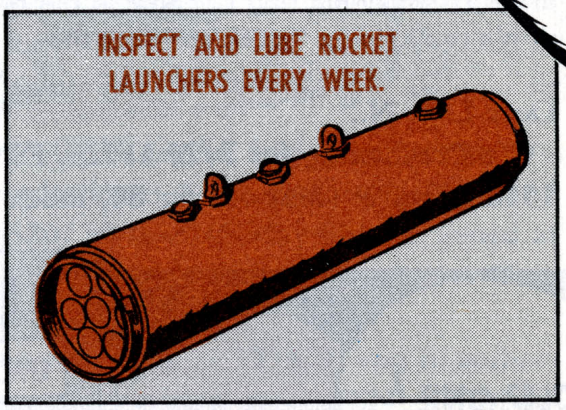
GYMNAST

How're you going to keep the MA4A bomb rack (FSN 1095-141-9328) on your XM16 and XM21 subsystems

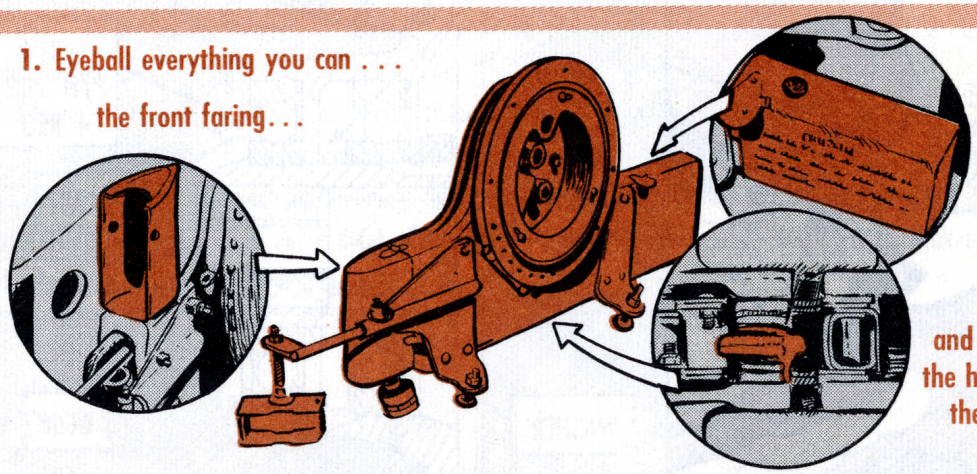
healthy when you're not allowed to get inside it?

Here're a couple easy ways:

Every week when you take the launchers off to lube and inspect and otherwise PM the pulleys and so forth, take an extra couple of minutes to doublecheck the rack—and to exercise it. Like so:



1. Eyeball everything you can . . .



If you find parts busted, bent or missing, get your DSU men to check it further and make with the fix-it. Never use a doubtful rack!

2. If everything stacks up OK, gymnasticate the rack by cocking and discharging the cocking ring a dozen times or so. This'll slim down your pilot's ejection woes considerable-like.

XM16 AND XM21 SUBSYSTEMS:

GYMNASTICATE THE RACK

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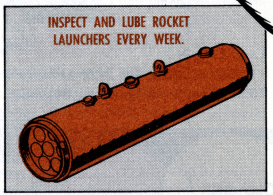
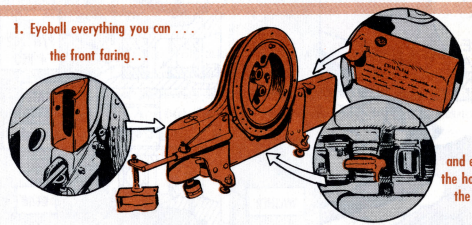


1. Eyeball everything you can . . .



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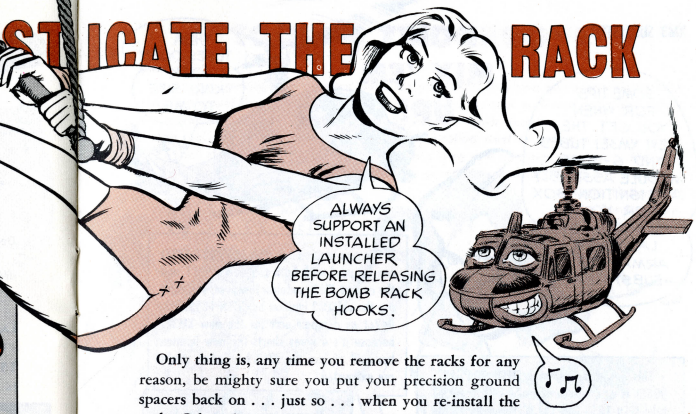
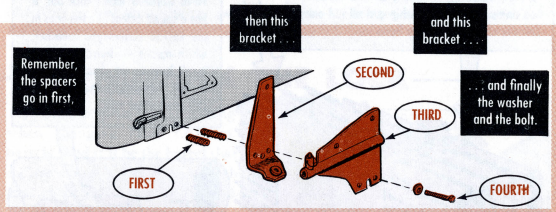
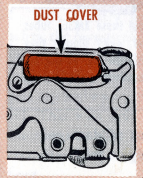


Only thing is, any time you remove the racks for any reason, be mighty sure you put your precision ground spacers back on . . . just so . . . when you re-install the racks. Otherwise you could end up with the hooks squeezing and freezing in the rack.

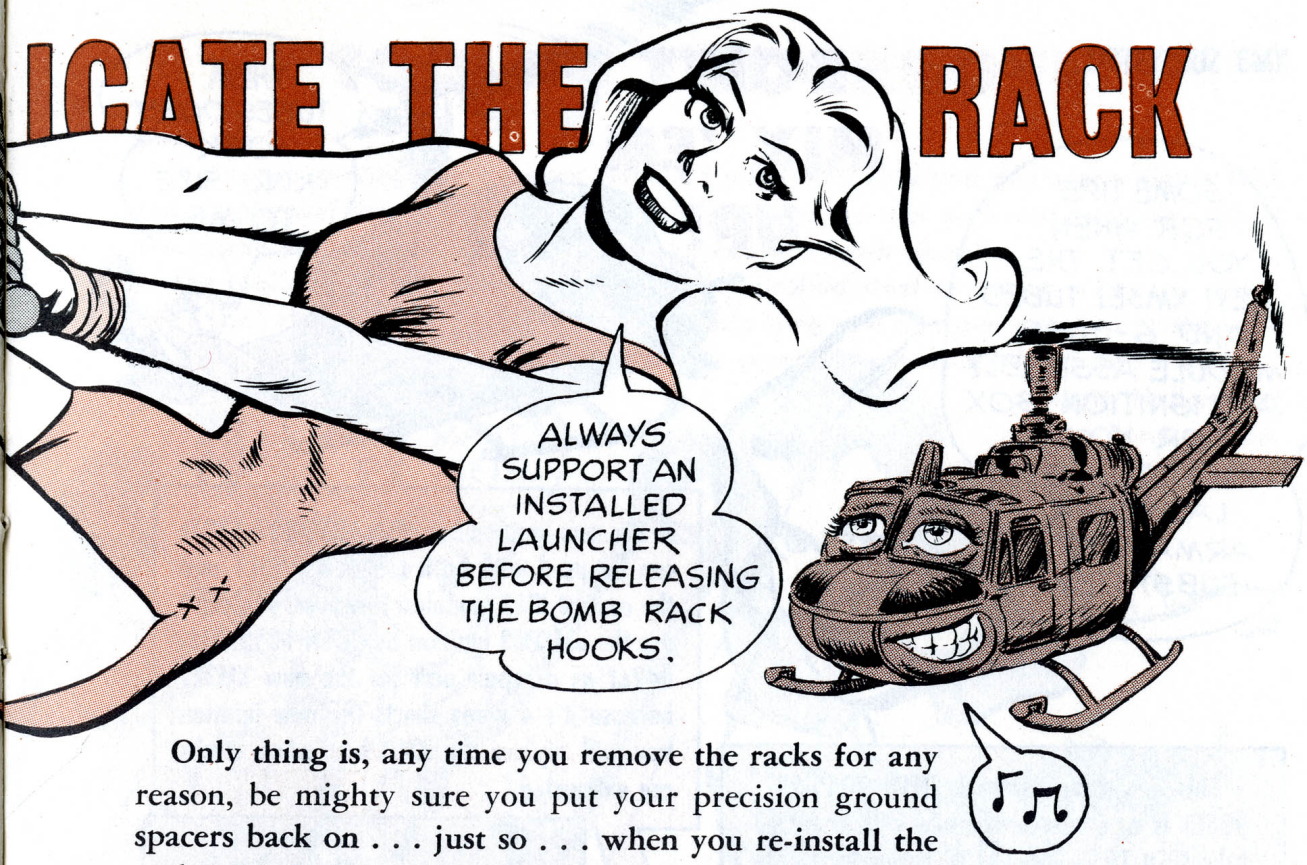




Another tip: Every time the Huey gets hosed down or gets parked on a dusty or sandy rotor-blown flight line, use a piece of plastic or a tarp or something to protect the underside of the rack. Two minutes' work here could save all kinds of trouble later on.

Incidentally, if you get a bomb rack with a small dust cover on the right side next to the cocking ring—and if this cover causes binding when you install the rack—just get rid of it.

ICATE THE RACK



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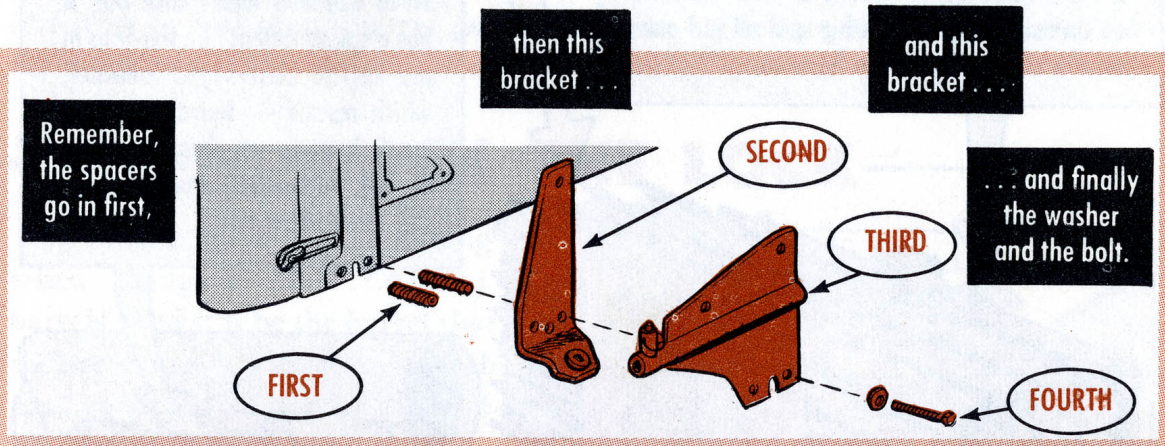

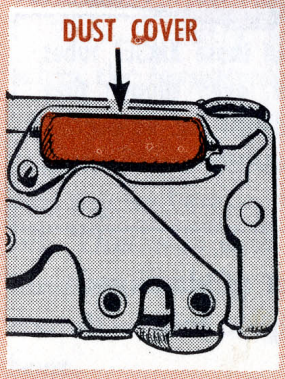

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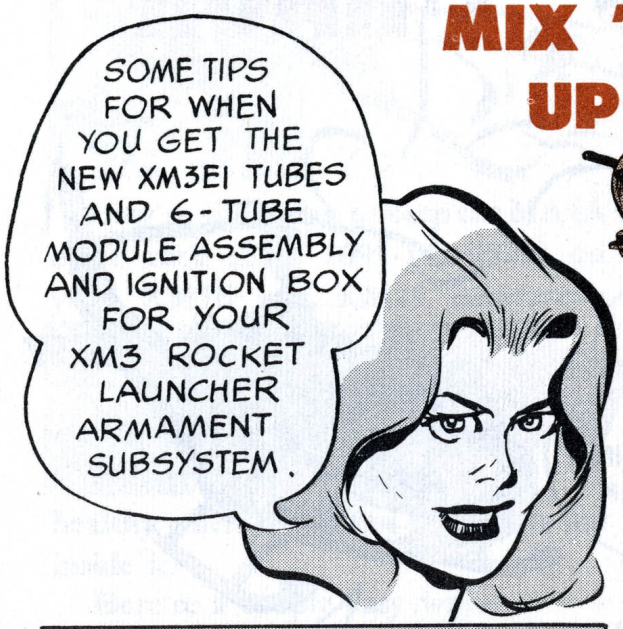
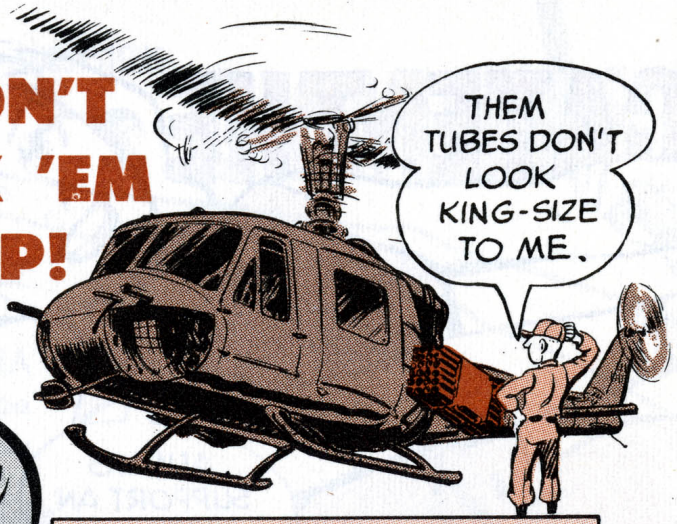
XM3 SUBSYSTEM . . .

DON'T MIX 'EM UP!

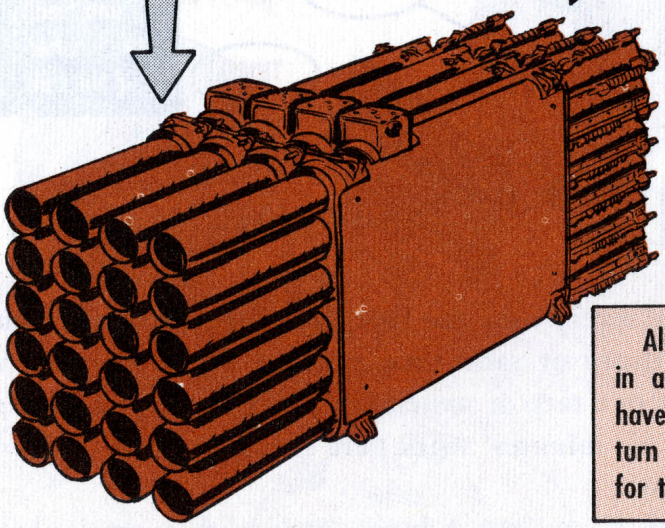


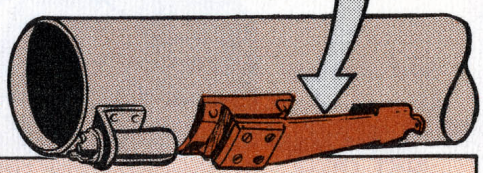


The new ignition box (FSN 1055-937-1337) can be used with both the new XM3E1 and the current XM3 modules. However, you can't use the old XM3 ignition box (FSN 1055-903-0426) as a repair part for the new XM3E1 because it's 4 wires short. The new ignition box will replace the XM3 box when stocks are exhausted.

This new tube assembly (FSN 1055-997-9988) is **not** interchangeable with the XM3 tube (FSN 1055-066-1313). Never try to use a new tube in a module with the old tubes. It's OK, however, to mount all new modules on one side of your gunship and all old ones on the other side, if you have to.

The new tube's about 53 inches long — long enough so that the 10-lb warhead won't stick out. It has a spring detent like the ones in the XM158 cluster-type launcher, which means — hurray! — you won't have to cut shear wires for it. But, remember, the old ones still need shear wires.





Also, never try to put these XM3E1 tubes in an XM158 launcher, even though they have the same spring detent and 90-degree-turn firing arm. The brackets are all wrong for this trick.

Here's another tip: Hang on to all serviceable components of damaged XM3 modules. They just might come in handy for speedy repair jobs — to keep your launcher subsystem fight-ready.

TOOL IN THE GROOVE

Dear Editor,

No sweat getting the grooves clean on your M60 machine gun's gas piston with the simple tool we made for the job. Just squeeze the tool with one hand and rotate the piston with the other . . . and, presto, hound's tooth clean!

The tool's easily made out of a piece of cold-rolled steel or spring wire, say about 3/16 inch thick. Make the tool about 6 inches long and sharpen one end of the wire to a flat tip (like a chisel end) to fit into the groove — say about 1/16 inch thick.

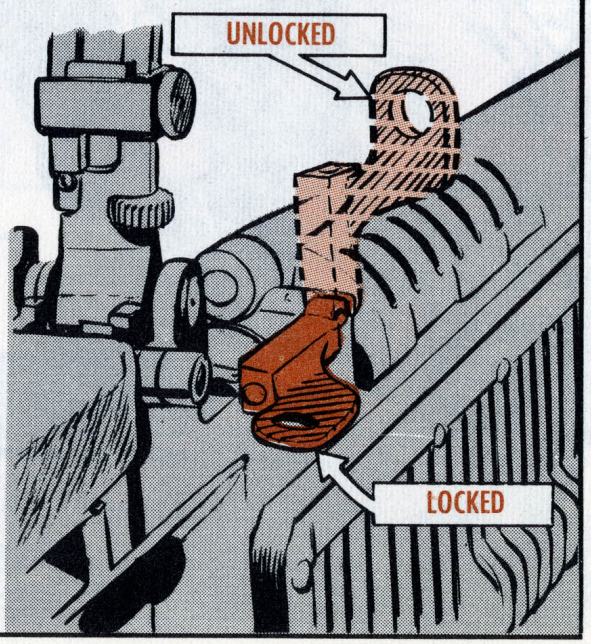
Kenneth Hallonquist
Fort Benning, Ga.

(Ed Note — Just the thing for any arms room — and especially for chopper outfits using any of the M60-series machine guns!)

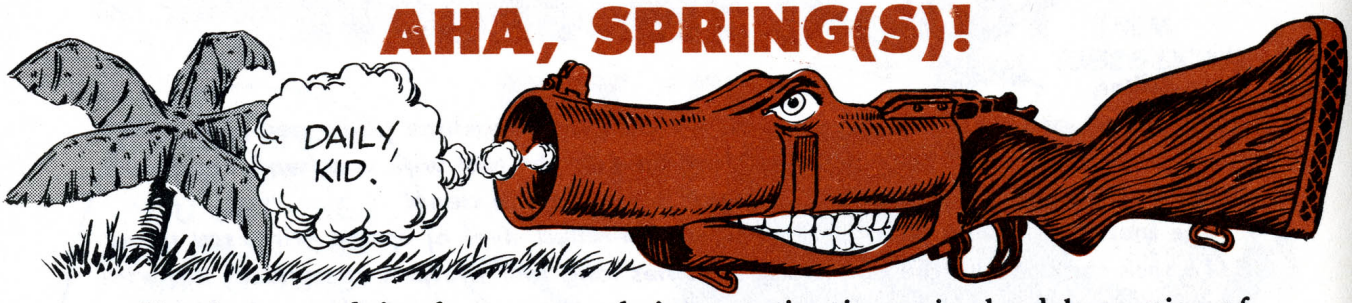
ROCK THE LOCK

A little neglect can go a long way when changing M60 7.62-mm MG barrels. And it'll be the barrel that does the traveling if you forget the barrel lock check called for in Table 3-1 of TM 9-1005-224-12 (Sep 65).

This is extra important at night, when the forgotten barrel locking lever can't be seen sticking up in the unlocked position. So finger-feel the lock while you tug and twist on the end of the barrel. This will save you the trouble of hunting for that barrel after the first round . . . and maybe save your hide to boot.



AHA, SPRING(S)!

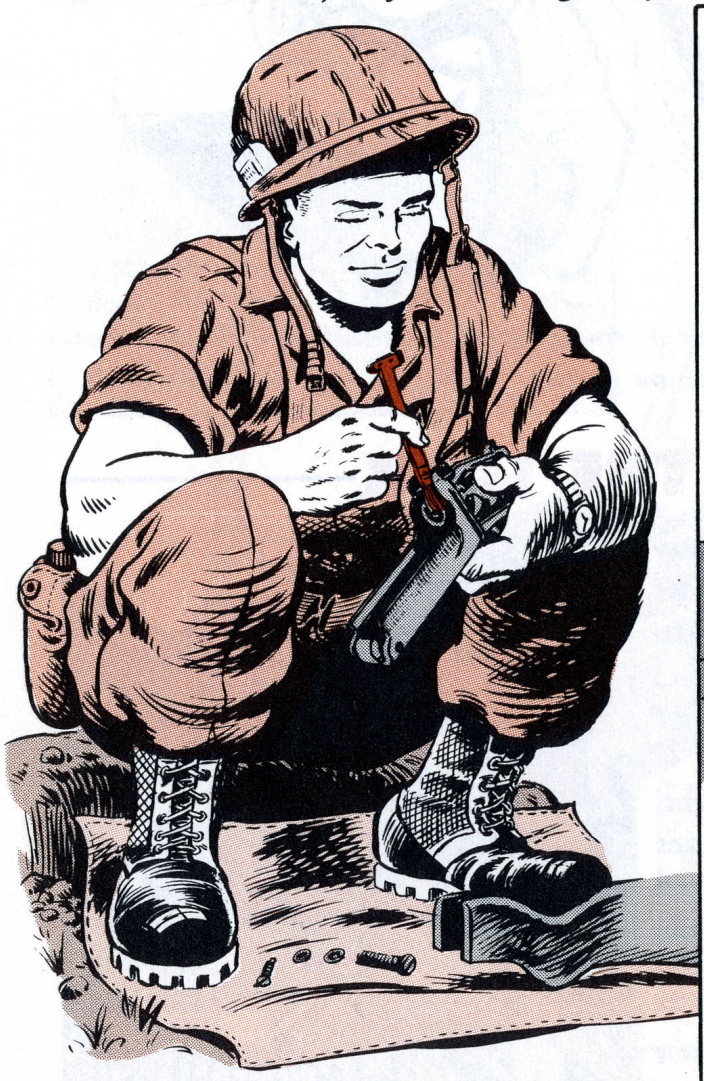


Here's some advice from guys who're sweating it out in the delta section of Vietnam with the M79 grenade launcher:

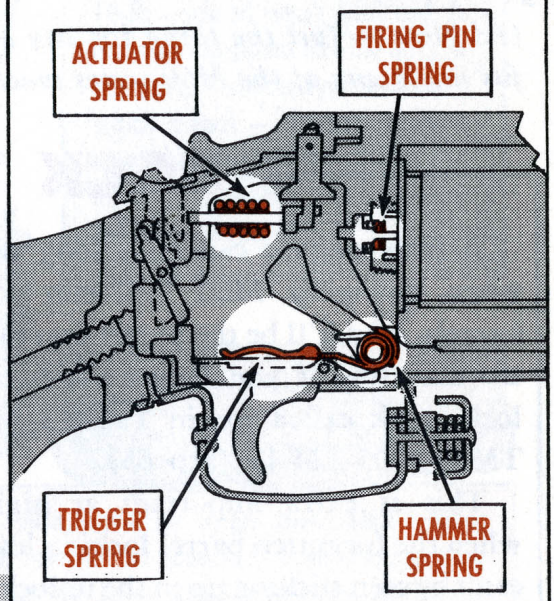
Remember the springs in the receiver group when you give your weapon the **daily** — not weekly! — cleaning and lubing job it needs in a hot, moist climate.

High humidity and sweat weaken lube oil in short order and unprotected parts like these hidden springs soon rust up and bind.

No trick to the job. Just do it regularly and thoroughly, like this:



Remove the receiver group from your weapon. Then use the chisel-edge artist's brush (FSN 8020-191-3970) to work CR cleaning solvent on and around all the parts — and especially the trigger spring, hammer spring, actuator spring, latch lock spring and the like. Not forgetting the firing pin spring, either.



Let the receiver and brush dry for 3-5 minutes. Then use the same brush to paint a light coat of PL Special (FSN 9150-273-2389 . . . 4 oz can) on all the parts, again concentrating on the springs. Light coat, the man said.

This should do it . . . for a day, anyway.

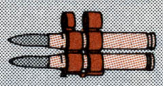
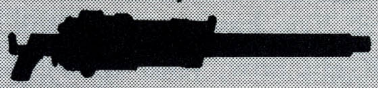
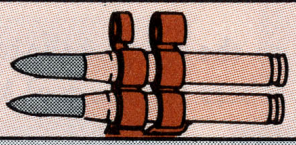
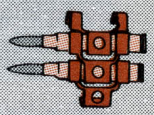
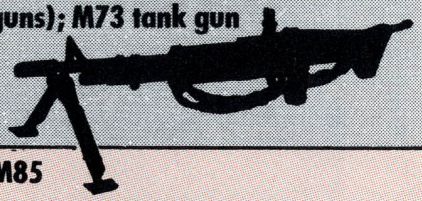
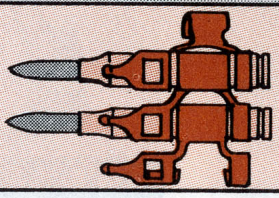
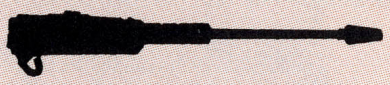
MACHINE GUNNERS: ?

LOOK BEFORE LOADING

You can't afford to be wrong when you're loading linked ammo in your machine gun — not with Charlie lurking about!

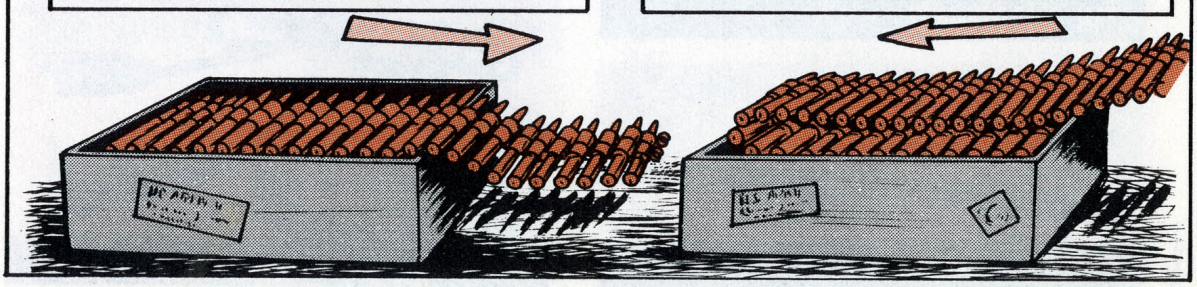
If you goof and get the belt wrong-side up — wow! — you'll get off one shot, but that's all. The belt-holding pawl will bust and your gun will be out of the fight!

1. Memorize how your gun should be loaded.

THIS LINKED AMMO GOES THIS WAY	IN THESE WEAPONS
30-cal Double loop leading 	All M1919 series, M1917A1 and M37 
50-cal Double loop leading 	Browning M2-series
7.62-MM Open side of links down and double loop leading 	M60-series (including chopper guns); M73 tank gun 
50-cal Open side of link down 	M85 

2. Load the ammo from the metal boxes or fiber containers the same way it's packed.

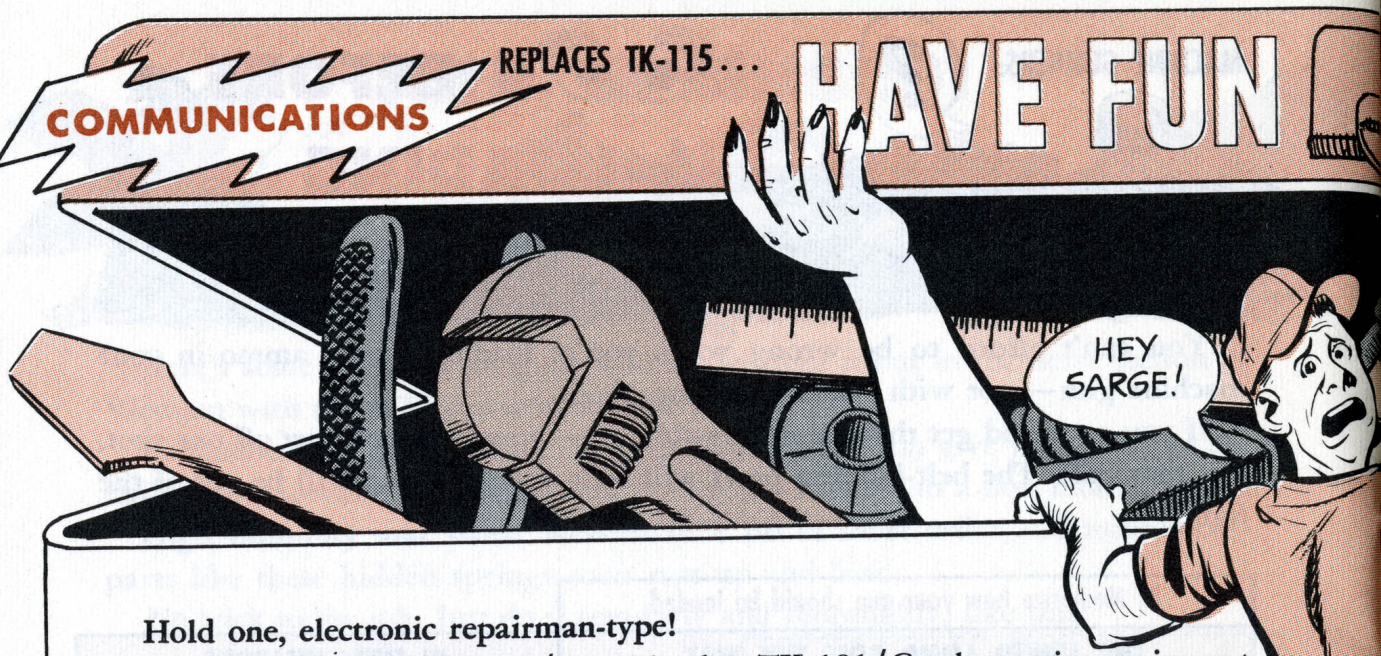
3. Put each unused ammo belt back in its container the same way it was first packed.



COMMUNICATIONS

REPLACES TK-115...

HAVE FUN



Hold one, electronic repairman-type!

Before combining TK-115/G with the TK-101/G electronic equipment tool kit like it says in SB 11-607 (Sep 66), make sure you have the tools you need. You have to add some and take some away.

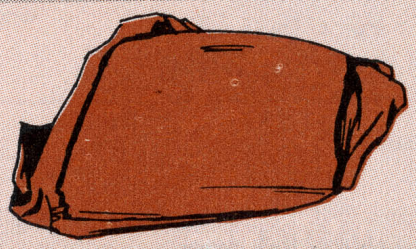
Right now, your best guides are SM 11-4-5180-R09 (Feb 62) for the TK-115/G, and SB 11-607.

So, string along for a rundown on the setup of the new converted TK-101/G. Here's a list of names and stock numbers for the tool kit items:

TOOL BOX, PORTABLE: steel, snap-type fastener, w/1 fixed tray; 14¼ x 7¼ x 6; SC-D-36305 or equal.

FSN 5140-678-4805

CLOTH, COTTON: cheesecloth; lintless; bleached; 36 in wd, 1 yd lg.

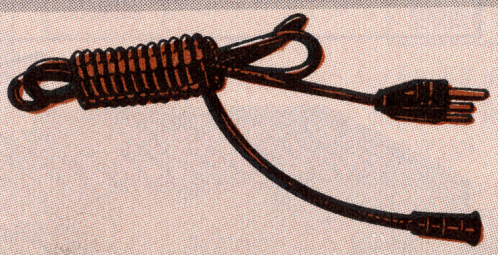


FSN 8305-267-3015

BRUSH, PAINT: squirrel tail hair bristle; sq edge; 1 in wd.

FSN 8020-245-4509

CORD SET: Type SVT, w/ferrule; plastic jacket; 18 awg, 3-pole, 15 amp, 125v cap.

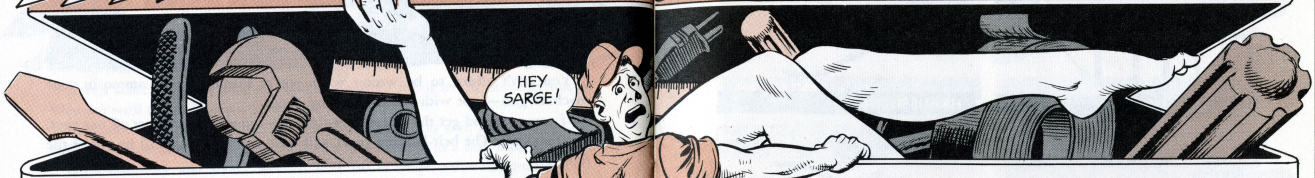


FSN 3439-897-9881

COMMUNICATIONS

REPLACES TK-115...

HAVE FUN WITH TK-101



Hold one, electronic repairman-type!

Before combining TK-115/G with the TK-101/G electronic equipment tool kit like it says in SB 11-607 (Sep 66), make sure you have the tools you need. You have to add some and take some away.

Right now, your best guides are SM 11-4-5180-R09 (Feb 62) for the TK-115/G, and SB 11-607.

So, string along for a rundown on the setup of the new converted TK-101/G. Here's a list of names and stock numbers for the tool kit items:

TOOL BOX, PORTABLE: steel, snap-type fastener, w/1 fixed tray; 14¼ x 7¼ x 6; SC-D-36305 or equal.

FSN 5140-678-4805

BRUSH, PAINT: squirrel tail hair bristle; sq edge; 1 in wd.

FSN 8020-245-4509

CLOTH, COTTON: cheesecloth; lintless; bleached; 36 in wd, 1 yd lg.

FSN 8305-267-3015

CORD SET: Type SVT, w/ferrule; plastic jacket; 18 awg, 3-pole, 15 amp, 125v cap.

FSN 3439-897-9881

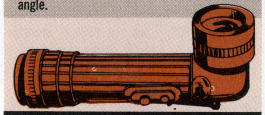
EXTRACTOR, TUBE: basket type, 7-pin.

FSN 5120-293-2696

EXTRACTOR, TUBE: basket type, 9-pin.

FSN 5120-293-2692

FLASHLIGHT: (MX-991/U) tubular case, right angle.



FSN 6230-264-8261

INSULATION TAPE, ELECTRICAL: black, friction; .015 in thk x ¾ in wd x 82½ to 85 ft lg.

FSN 5970-184-2003

KEY SET, SOCKET HEAD SCREW: hex dr (Allen wrenches); w/carrying container.

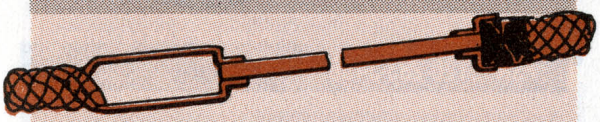
FSN 5120-965-0298

Size	Nom Arm lg (in)	FSN
.035	1 1/16-1 5/16	5120-198-5400
.050	1 5/16-1 3/4	5120-198-5401
1/16	1 21/32-1 27/32	5120-198-5398
5/64	1 25/32-1 31/32	5120-224-2504
3/32	1 29/32-2 3/32	5120-242-7410
7/64	2 1/32-2 7/32	5120-889-2162
1/8	2 5/32-2 11/32	5120-240-5292
9/64	2 9/32-2 15/32	5120-889-2163
5/32	2 13/32-2 19/32	5120-198-5392
3/16	2 21/32-2 27/32	5120-240-5300
7/32	2 29/32-3 3/32	5120-242-7411
1/4	3 5/32-3 11/32	5120-224-4659

PAGES MORE

WITH TK-101

EXTRACTOR, TUBE: basket type, 7-pin.



FSN 5120-293-2696

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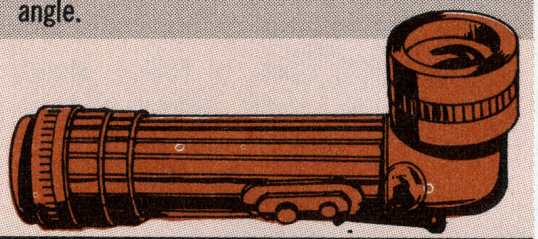
FSN 5120-293-2692

FLASHLIGHT: (MX-991/U) tubular case, right angle.



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INSULATION TAPE, ELECTRICAL: black, friction; .015 in thk x ¾ in wd x 82½ to 85 ft lg.

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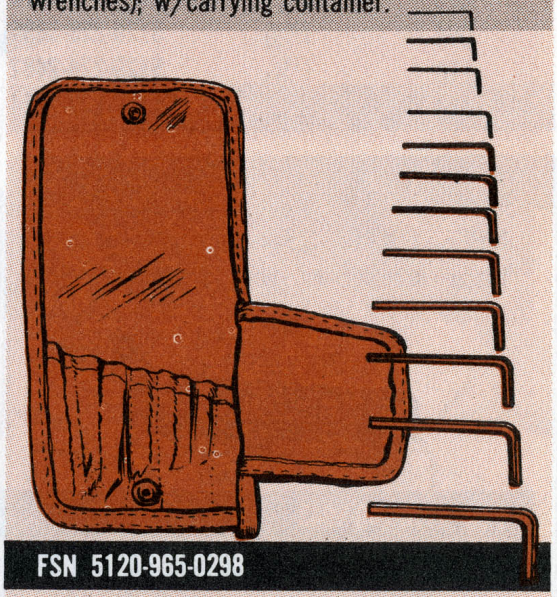
KEY SET, SOCKET HEAD SCREW: hex dr (Allen wrenches); w/carrying container.

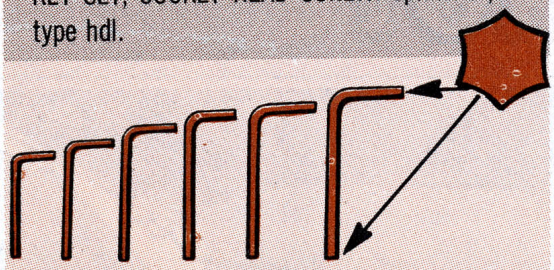


FSN 5120-965-0298

Size	Nom Arm lg (in)	FSN
.035	$1\frac{1}{8}$-$1\frac{5}{16}$	5120-198-5400
.050	$1\frac{9}{16}$-$1\frac{3}{4}$	5120-198-5401
$\frac{1}{16}$	$1\frac{21}{32}$-$1\frac{27}{32}$	5120-198-5398
$\frac{5}{64}$	$1\frac{25}{32}$-$1\frac{31}{32}$	5120-224-2504
$\frac{3}{32}$	$1\frac{29}{32}$-$2\frac{3}{32}$	5120-242-7410
$\frac{7}{64}$	$2\frac{1}{32}$-$2\frac{7}{32}$	5120-889-2162
$\frac{1}{8}$	$2\frac{5}{32}$-$2\frac{11}{32}$	5120-240-5292
$\frac{9}{64}$	$2\frac{9}{32}$-$2\frac{15}{32}$	5120-889-2163
$\frac{5}{32}$	$2\frac{13}{32}$-$2\frac{19}{32}$	5120-198-5392
$\frac{3}{16}$	$2\frac{21}{32}$-$2\frac{27}{32}$	5120-240-5300
$\frac{7}{32}$	$2\frac{29}{32}$-$3\frac{3}{32}$	5120-242-7411
$\frac{1}{4}$	$3\frac{5}{32}$-$3\frac{11}{32}$	5120-224-4659

PS MORE

KEY SET, SOCKET HEAD SCREW: spline dr, L-type hdl.



FSN 5120-585-6257

Size (Maj dia in)	Nom Arm lg (in)	FSN
No .060	1 5/8	5120-293-0195
.069	1 21/32	5120-224-2496
.076	1 3/4	5120-249-9670
.094	1 29/32	5120-223-6995
.110	1 11/16	5120-224-2482
.144	2 5/16	5120-277-1724

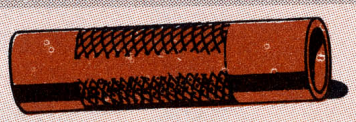
KNIFE, POCKET: 2 3/8 in-2 9/16 in lg cutting blade; screwdriver, wire scraper; w/clevis.

FSN 5110-240-5943

MIRROR, INSPECTION: elliptical; all angle.

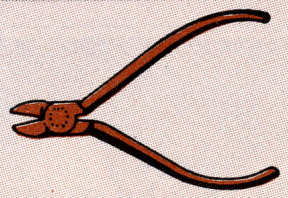
FSN 5120-596-1098

PIN STRAIGHTENER, TUBE: 7- and 9-pin. Duro Specialty, No D-200.



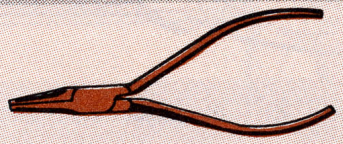
FSN 5120-392-8361

PLIERS: diagonal cutting; min, reg nose; w/o stripping notches; 4 in nom size.



FSN 5110-965-0974

PLIERS: short nose, w/o cutter; 4 in nom size.



FSN 5120-293-3486

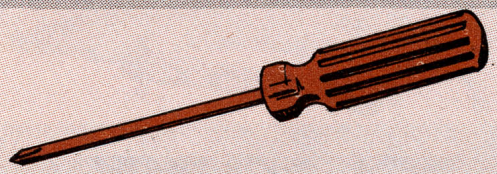
PLIERS: slip joint; straight nose; comb jaw w/cutter; reg; 6 in nom size.

FSN 5120-223-7396

SCREWDRIVER: cross tip; Phillips; straight; plastic hdl; no 1 pt size; 3 in nom blade lg.

FSN 5120-240-8716

SCREWDRIVER: cross tip; Phillips; straight; plastic hdl; no 2 pt size; 4 in nom blade lg.



FSN 5120-234-8913

SCREWDRIVER: flat tip; close qtr; plastic hdl; .037 in thk x 1/4 in wd tip; 1 1/2 in nom blade lg.

FSN 5120-529-0842

SCREWDRIVER: flat tip; plastic hdl; w/pkt clip; .020 in thk x 1/8 in wd tip; 2 in nom blade lg.

FSN 5120-236-2140

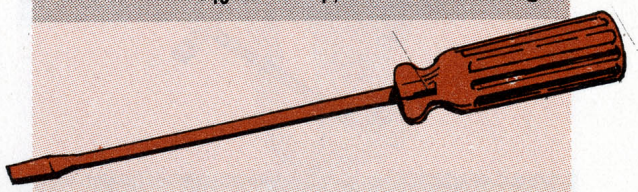
SCREWDRIVER: flat tip; heavy duty; blade extended thru wood hdl; .037 in thk x 1/4 in wd tip; 4 in nom blade lg.

FSN 5120-278-1282

SCREWDRIVER: flat tip; lt duty; plastic hdl; .030 in thk x 3/16 in wd tip; 5 in nom blade lg.

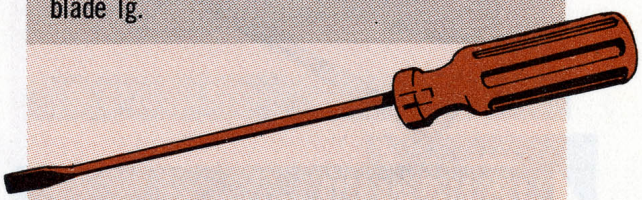
FSN 5120-278-1270

SCREWDRIVER: flat tip; lt duty; plastic hdl; .030 in thk x 3/16 in wd tip; 8 in nom blade lg.



FSN 5120-278-1272

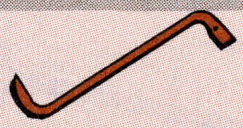
SCREWDRIVER: flat tip; extra lt duty; plastic hdl; .020 in thk x 9/64 in wd tip; 8 in nom blade lg.



FSN 5120-729-6393

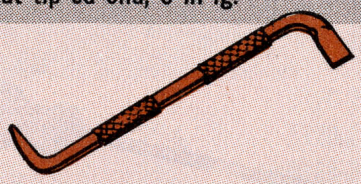
PS MORE

SCREWDRIVER: dbl offset; .025 in thk x 5/32 in wd flat tip ea end; 3 in lg.

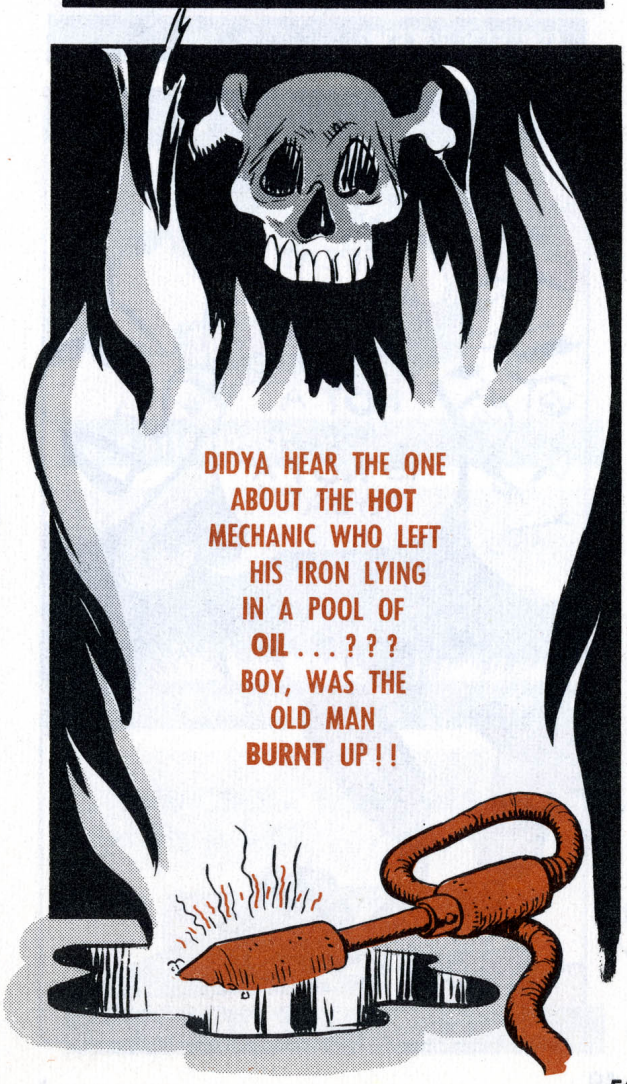


FSN 5120-287-2129

SCREWDRIVER: dbl offset; .042 in thk x 5/16 in wd flat tip ea end; 5 in lg.



FSN 5120-288-9710



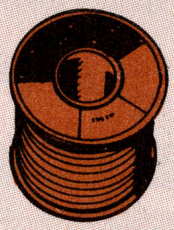
SCREWDRIVER, RATCHET: rt angle offset; rt and lf hand turning; 2 blades; Phillips no 1 and 2 pt size.

FSN 5120-892-5931

SCREWDRIVER, RATCHET: rt angle offset; .035 in thk x 1/4 in wd flat tip on one side; .045 in thk x 3/8 in wd flat tip on other side; 3 7/8 in lg.

FSN 5120-596-0882

SOLDER: lead-tin alloy, rosin core; 1/32 in dia; 1 lb spl.



FSN 3439-555-4629

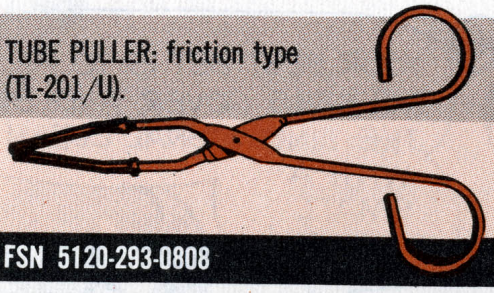
SOLDERING IRON, ELECTRIC: 115v, 55 watt; 8 3/16 in lg.

FSN 3439-853-6653

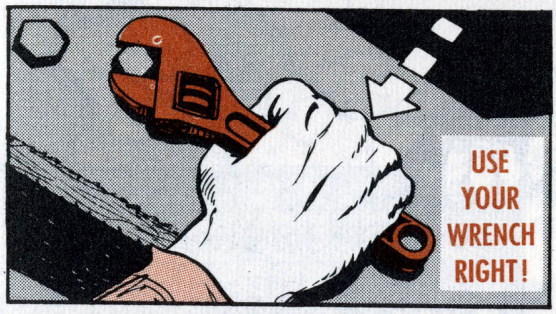
TIP, ELECTRIC SOLDERING IRON: screwdriver shape; 3/16 in size; 1 5/32 in reach.

FSN 3439-993-2770

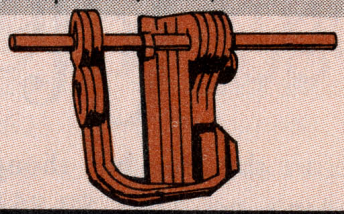
TUBE PULLER: friction type (TL-201/U).



FSN 5120-293-0808



WRENCH SET: spanner (nested).



FSN 5120-658-9805

WRENCH, ADJUSTABLE: open end; single hd; steel, chrome or nickel pl; 6 in nom size.

FSN 5120-264-3795

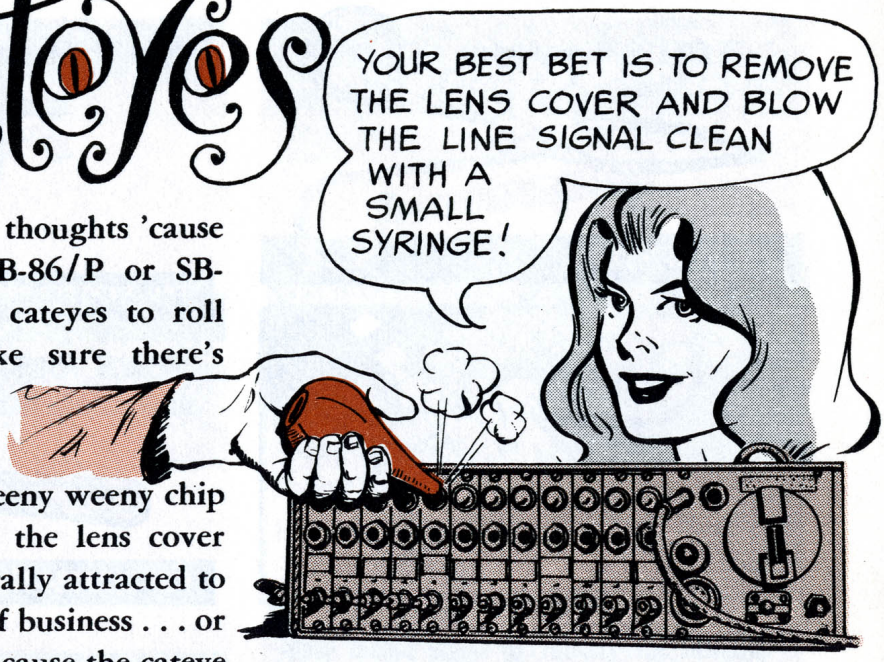
WRENCH SET: (TL-651/U) single socket spanner-screwdriver type; hex.

FSN 5120-542-5799

Size (in)		Min O/A lg (in)	FSN
3/16		6	5120-224-2599
7/32		6	5120-277-1801
1/4		6	5120-241-3188
5/16		6	5120-224-2596
11/32		6	5120-293-0796
3/8		6	5120-596-1263
7/16		7	5120-222-1499
1/2		7	5120-293-0375
9/16		7	5120-294-9514

END

LOOK INTO YOUR cateyes



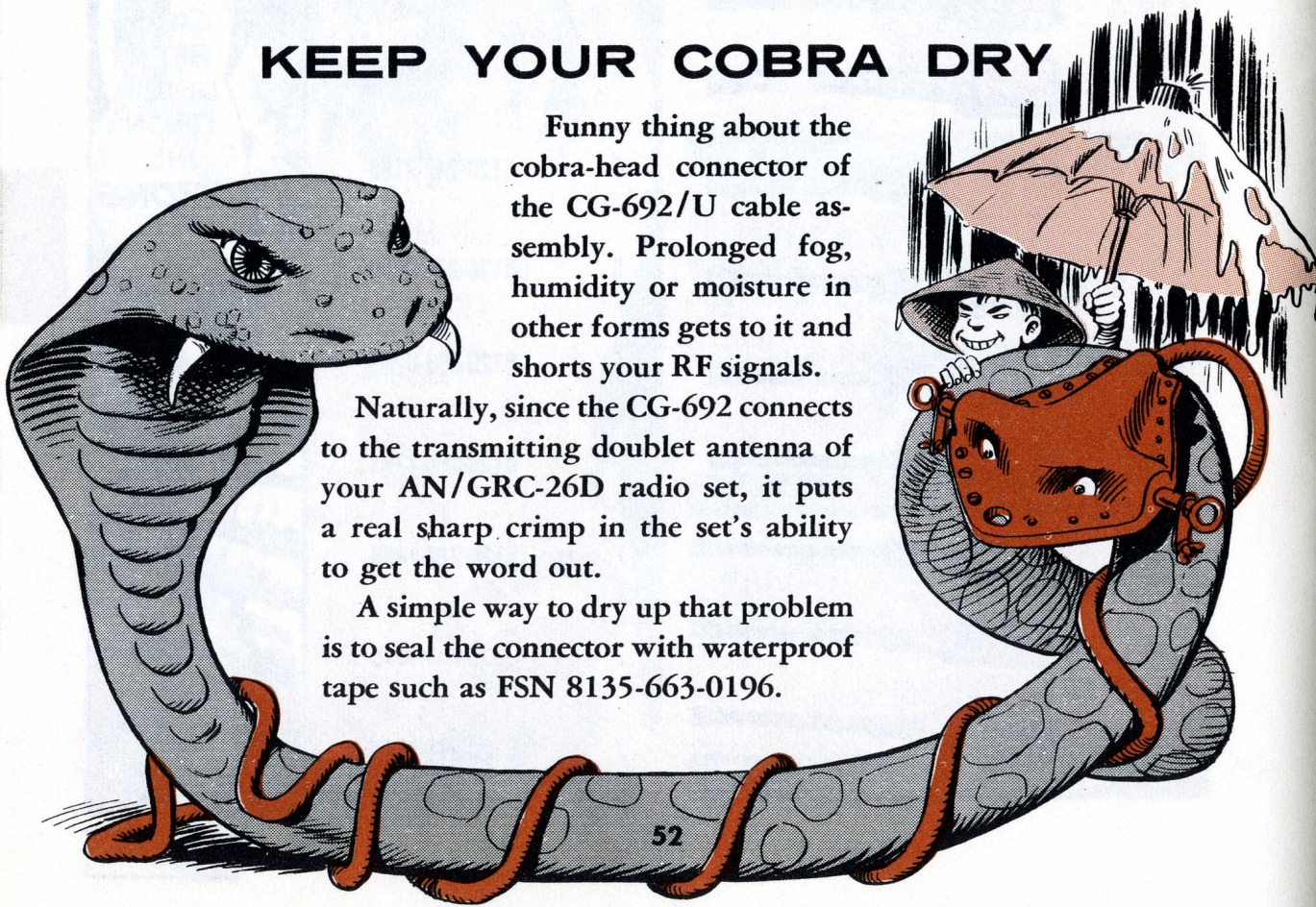
Before thinking bad thoughts 'cause you can't get your SB-86/P or SB-22( )PT switchboard's cateyes to roll around for you, make sure there's nothing in them.

Like, f'rinstance, a teeny weeny chip of metal shredded off the lens cover thread can be magnetically attracted to the eye and put it out of business . . . or bits of dust or dirt can cause the cateye or line signal to stick.

Never use a sharp tool to free the signal. It'll jam the eye and head your switchboard for higher maintenance. Gently and lightly move the signal with your finger to get it to roll.

If the lens is cracked or broken, get 'er replaced.

KEEP YOUR COBRA DRY



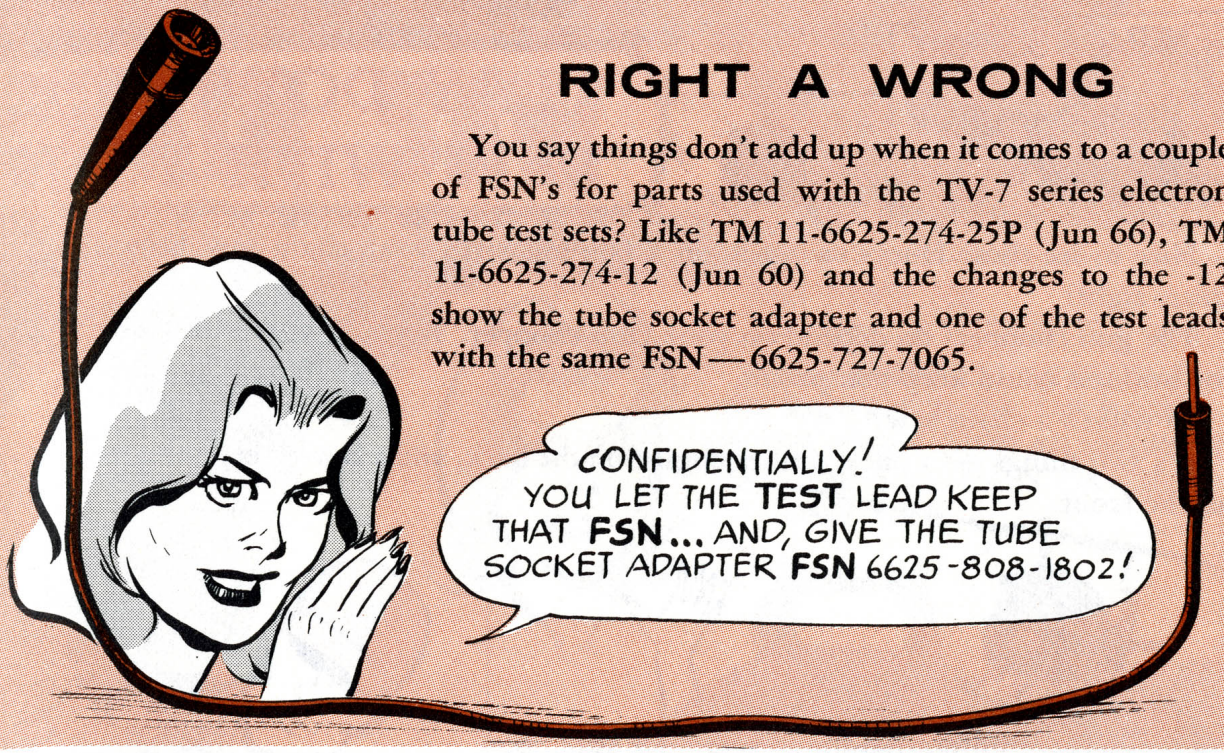
Funny thing about the cobra-head connector of the CG-692/U cable assembly. Prolonged fog, humidity or moisture in other forms gets to it and shorts your RF signals.

Naturally, since the CG-692 connects to the transmitting doublet antenna of your AN/GRC-26D radio set, it puts a real sharp crimp in the set's ability to get the word out.

A simple way to dry up that problem is to seal the connector with waterproof tape such as FSN 8135-663-0196.

RIGHT A WRONG

You say things don't add up when it comes to a couple of FSN's for parts used with the TV-7 series electron tube test sets? Like TM 11-6625-274-25P (Jun 66), TM 11-6625-274-12 (Jun 60) and the changes to the -12 show the tube socket adapter and one of the test leads with the same FSN — 6625-727-7065.



NO PARTS FOR A PP-1578

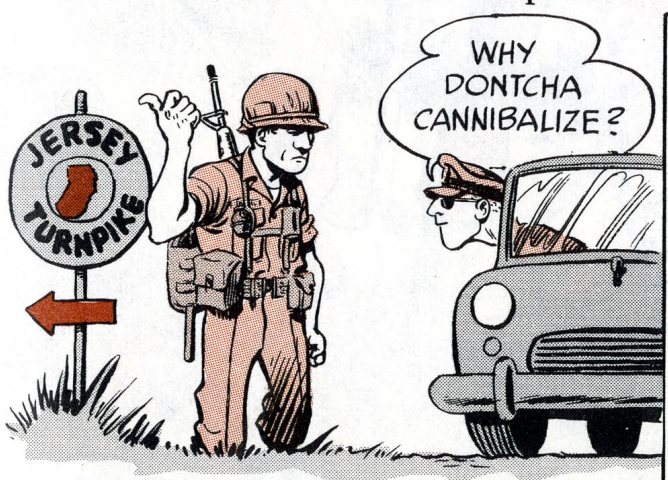
If you've been sweating out FSN's for parts like a carrying case, adapter, dust cap, or whatever for your PP-1578( )/PD radiac detector chargers, you're going to need a lot of salt tablets.

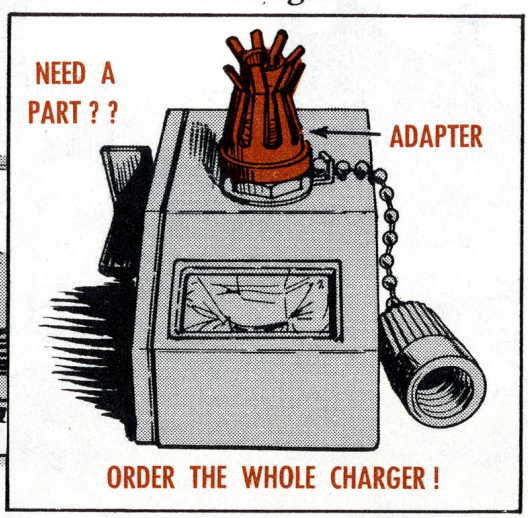
There are no FSN's assigned to anything but the entire charger. Since the whole charger costs only $15, it's cheaper to stock just the item itself rather than go through the paperwork and other expense of putting parts in the system.

So, if you need a part, cannibalize or order the whole charger.

Your only other solution is to local purchase the adapter from Data Instruments Division, 3300 Crescent Blvd., Pennsauken, N. J. Be sure to include your charger's model number.

Bonus: Just in case the word didn't filter your way, TB 11-6665-215-12/1 (24 Dec 63) is the latest out on operation and PM on the charger.





LAY DOWN THE LAW WITH YOUR

Nice to see those Hueys swing in on a landing strip your chain saw helped clear, right?

The gun choppers do depend on your chip-chopper. Keeping that saw ready for business could keep you proud.

So what's a chain saw?

It's two things — a one-cylinder engine on the back, and a beaver-eager cutter on the front.

LAY DOWN THE LAW WITH YOUR CHAIN SAW

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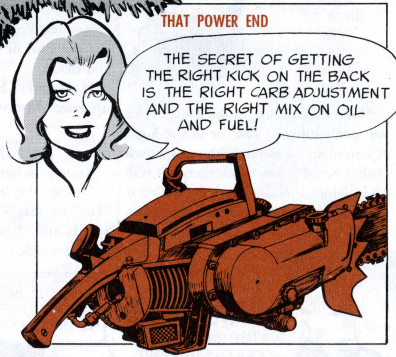

THAT POWER END
THE SECRET OF GETTING THE RIGHT KICK ON THE BACK IS THE RIGHT CARB ADJUSTMENT AND THE RIGHT MIX ON OIL AND FUEL!

Most military saws take a pint of OE 30 non-detergent lube to two gallons of gas. This is a 16 to 1 ratio.

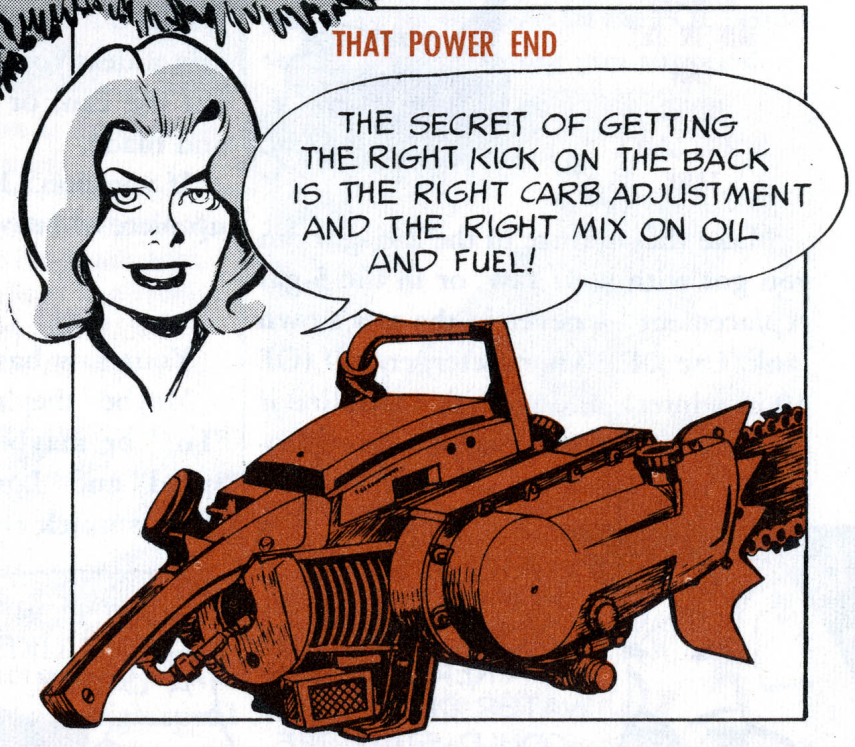
YOU CAN USE AN EMPTY 12-OUNCE BEVERAGE CAN TO MEASURE THAT LUBE — LIKE THIS--

Be sure the can's clean, and mark off 2/3 of the way up from the bottom. Filled to that mark, you've got 8 ounces. Do it twice, and that's a pint. Just don't use it for brew or fizz-water again; that'd leave you with an oily taste.

MORE

CHAIN SAW

THAT POWER END



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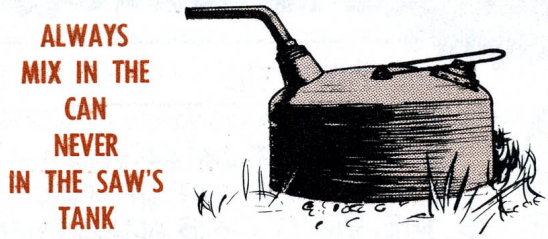
MORE

And picking the right gasoline and the right oil is like pitchin' woo — both subjects are simple, but there's something in how you do it.



Make the mixture in the 2½-gal can you got with your saw, or in the 3-gal replacement — never in the saw's own tank. Use OE 30 non-detergent oil (OE 10 in winter), and unleaded gasoline if possible. Otherwise, use combat gasoline.

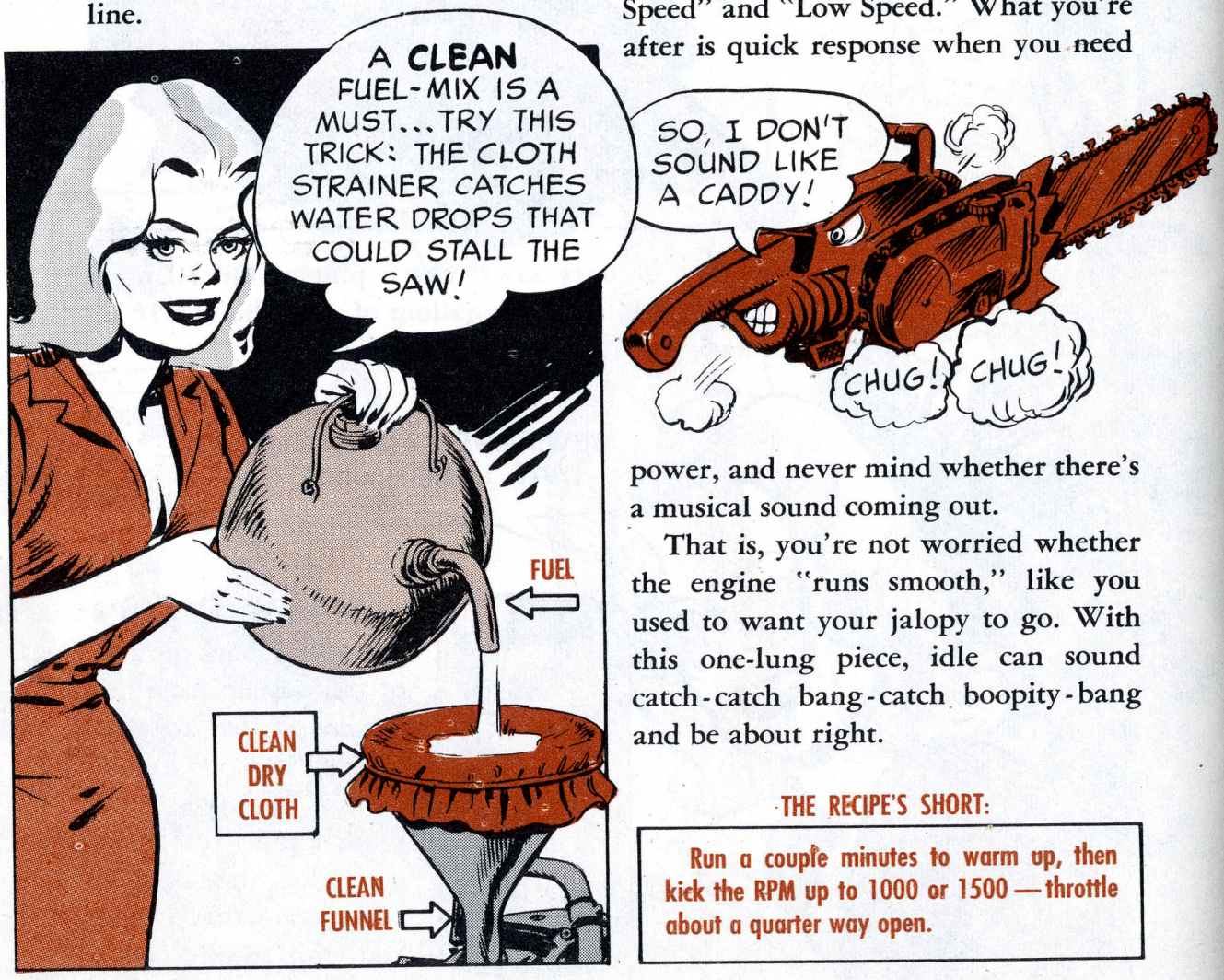
If you suspect there's water enough to mud up your fuel, but not enough to make drops, you can chuck in an ounce or two of methyl alcohol to every canful of gas-oil mixture. If that's unhandy, just don't use the bottom half inch of mix unless you have to; use it to wash out the can, or maybe clean both can and blade.

If you don't have a funnel, a rolled-up piece of heavy paper works.

THAT CARBURETOR BIT

Your saw has two needles to set.

Maybe they're labeled "Hi" and "Lo," or maybe they're called "High Speed" and "Low Speed." What you're after is quick response when you need power, and never mind whether there's a musical sound coming out.

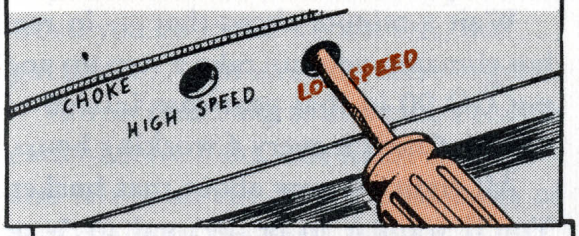


That is, you're not worried whether the engine "runs smooth," like you used to want your jalopy to go. With this one-lung piece, idle can sound catch-catch bang-catch boopity-bang and be about right.

THE RECIPE'S SHORT:

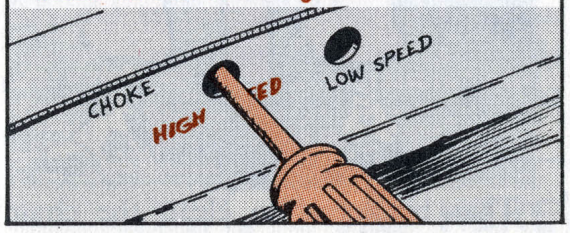
Run a couple minutes to warm up, then kick the RPM up to 1000 or 1500 — throttle about a quarter way open.

Then set low speed to just under where the chain tries to inch forward.

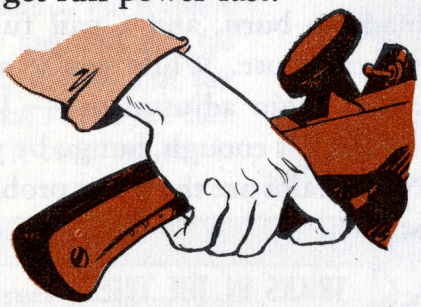


To clear out gas fumes in the crankcase, speed up for about 10 seconds . . .

then set "High" with the throttle about half open until you get rid of the ka-whoof sound. That you may call "two-cycling." That's really a sign it's not hitting every time. Richen up the mixture by backing out the high-speed needle till that sound's gone.

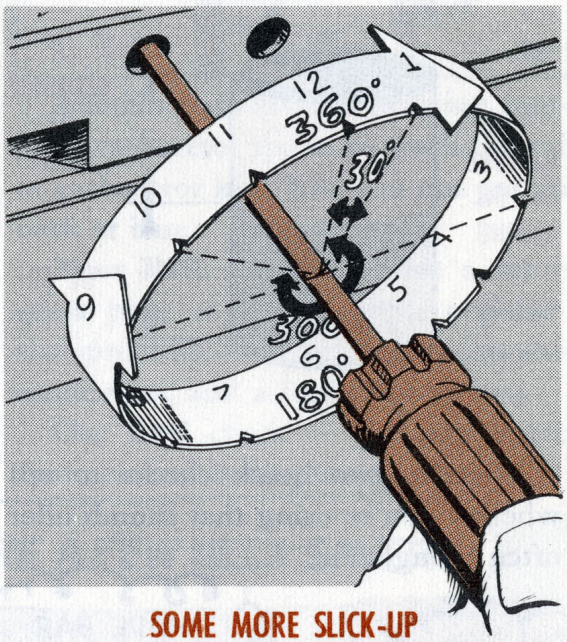


Now you're ready to make a check. Are both low-speed and high-speed needle settings close to a full turn open? If so, you've come close to a bull's eye the first shot. Open the throttle . . . do you get full power fast?



The trick on this speed-setting bit is, most people try to run too lean. Maybe they're trying to save gas. But if you save gas, you don't get enough oil. You want to run just below black smoke and backfires, and backing both screws out from the closed position by 300 degrees or so is a good start.

You know there're 360 degrees in a full turn, and 30 degrees in the angle an hour hand makes in each hour, so you can guess it pretty well. Just remember you're after good power and plenty of lubing, and let the POL people worry about keeping you supplied.

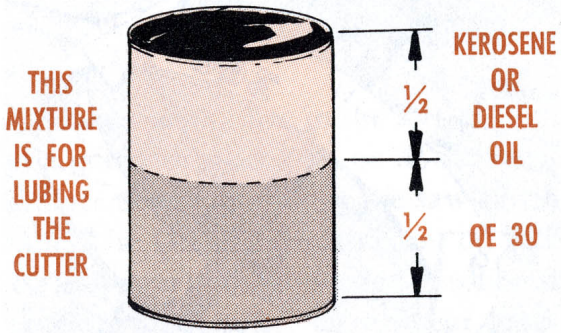


SOME MORE SLICK-UP

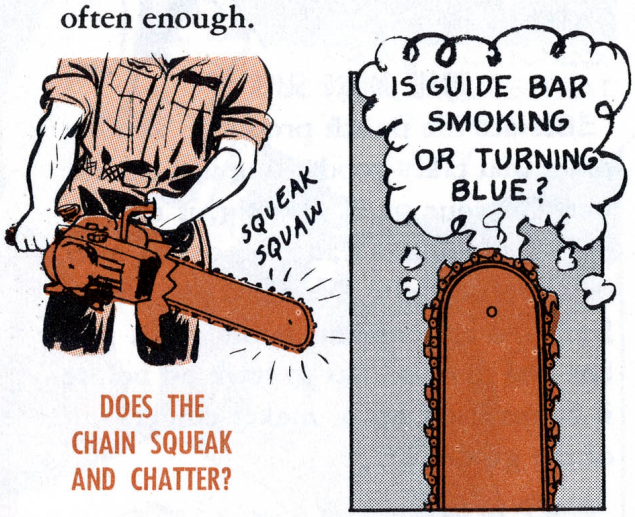
Besides the punch producer, another place that takes good oiling is the guide bar. On your particular rig, it may be called chain lubricator or cutter oiler or something else. Names could matter less — what happens is the chain gets hot and dry and has to have oil before it burns itself up or makes cinders out of the guide bar.

P.S. MORE

This has to be a mix, too — you can't just throw in any old oil, any old weight, and get by. You use 50 percent kerosene and 50 percent OE 30, or half diesel juice and half OE 30 — no diff . . . and in winter, natch, OE 10 instead of 30 weight.



There're two quick checks to tell whether you're using that thumb oiler often enough.



Then squirt oftener, it's far better to use that thumb oiler too much than too little. You don't have much time to waste on repairing busted chains.

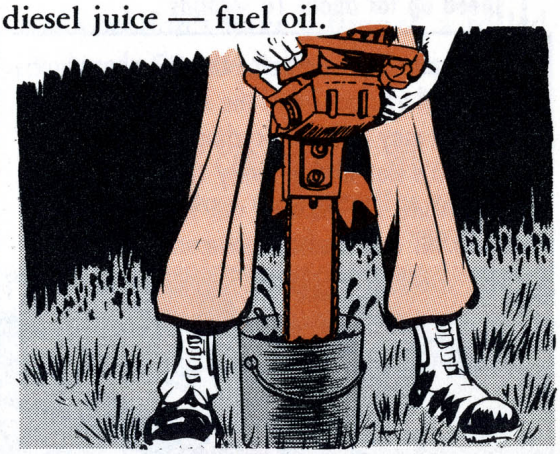
Fact, you're about through worrying with lubes if you've got this all done OK.

All that's left is the gear case and a bucket.

Bucket? Nothing about a bucket in the LO, you say?

Wait a minute about that — in real hot climates, you can take a step up and put GO 90 in that gear case instead of GO 75. Check it every 4 working hours.

All right — now about that bucket. You'll want it to be 1½-gal to 3- or 4-gallon. In it you'll want 5 to 6 inches diesel juice — fuel oil.



That bucket is to clean the chain when you cut rubber trees or gummy wood. Gummy sap like latex comes out with a minute or so run, with the guide bar snout dunked in 3 or 4 inches.

Only thing is, cool it down with a short pause before dipping. Diesel juice was made to burn, and a pail full of fire you can't use. While you're at it, check that chain adjustment — ½-in to ¾-in slack is enough, but go by your TM. New chains are the worst problem; they stretch.

TRICKS IN THE TREES

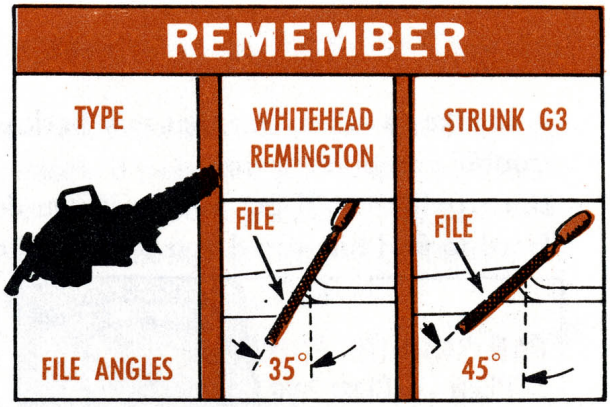
Maybe you already know that whole chains can usually be swapped between different makes of saws, provided pitch

of sprocket drive and chain match up, so you take chains instead of repair kits when you go to the woods. OK, fine . . . got pliers . . . got screwdrivers . . . good.

It won't hurt any to also take a couple each of drive links, side links, and right- and left-hand cutters for each make of saw chain on the day's job.

What makes it rough is drawing a saw from a pool, and finding out it won't match any other make around. Then maybe you find nobody's checked it over in weeks . . . dull, chain loose, dirty air filter . . . mess.

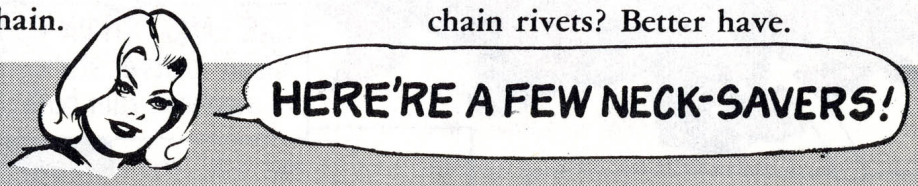
You oughtn't to file teeth out on the job, but at times like this you have to. That makes a round file, ¼-in, a handy item. Try to match the angle for the brand of chain.



Another pain-saver is carrying complete carburetor spares to work instead of carburetor kits. Kits you can put on back at base.

Your BIIL should provide a spare spark plug or two, a couple popular-size sprockets, some magneto points and condensers, and a fuel filter or two.

One final check — got any spare chain rivets? Better have.

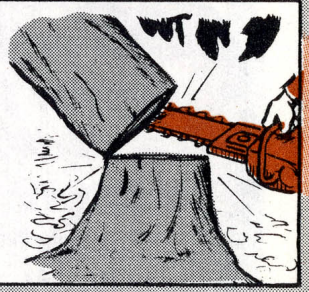


Good maintenance includes keeping yourself in shape to go-go, too. So besides looking out for wind-swinging trees and trunk-length distance from other people's cuts, there're other good rules.

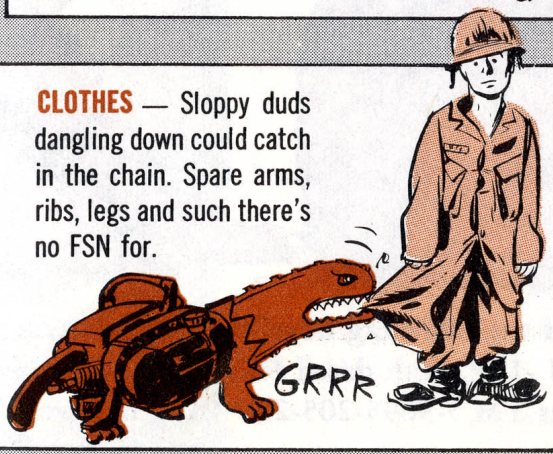
MOVING — This is always with saw shut off. You could stumble. That saw can cut a tree a yard thick and it could cut you in half.

TOOLS — Out of the way except in use.

ROOM — If the wind changes, would you have a choice of ways to escape a fall? You wouldn't walk into an ambush; don't trap yourself.



CLOTHES — Sloppy duds dangling down could catch in the chain. Spare arms, ribs, legs and such there's no FSN for.



RESTARTING — Set saw on something solid first—no in-the-hand stuff.

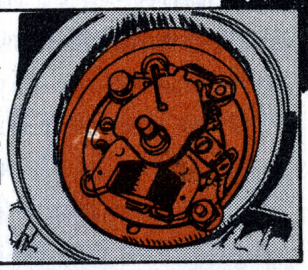
PS MORE

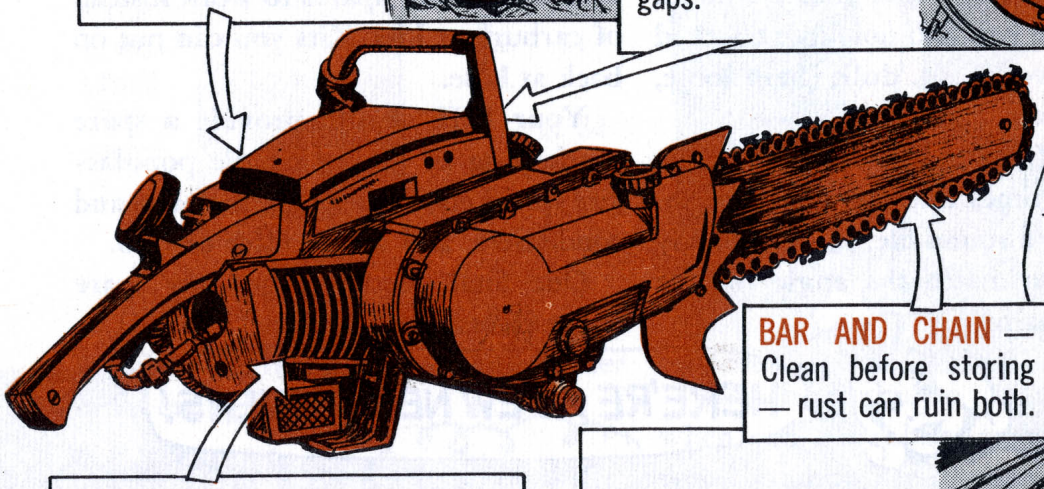
BACK IN CAMP

It takes work to put that saw back in shape when you come in. Tired you are; trouble you don't want.
But trouble you'll get double if you don't make a check-over.
Hard-to-find bits you'd best work on first.

FAN SHROUD AND SCREEN — Clear 'em of leaves and sticks.

IGNITION SYSTEM — Check caps, switches, and controls as well as points, plugs, and gaps.



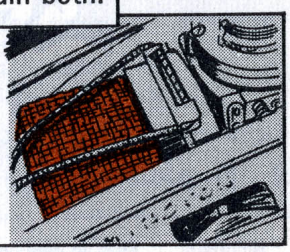


CLEAN OFF THE DIRT THAT COLLECTS AROUND THE CHAIN-OIL OPENING.

BAR AND CHAIN — Clean before storing — rust can ruin both.

COOLING FINS — Clean out mud and dirt, and wash out heavy oil. If these clog, your saw is on the edge of burning up.

AIR FILTERS—Take off, dust off, and if they won't wash out, change.



IF YOU'VE GOT **NO** TM... HERE'RE SOME FACTS TO KEEP HANDY!

PUB	MANUFACTURER
TM 5-3695-200-15 (Aug 60)	L-M Strunk Model G-3
TM 5-3695-204-25P (Jun 62)	L-M Strunk Model G-4
TM 5-3695-207-15 (Apr 64)	Whitehead Model 207M
TM 5-3695-213-15 (Jul 66)	Remington Model 754G
EMC No. 7610-C1-3133	Remington Model 2MG

But if you should happen to have one of the older big boys, the 36-in Strunk G-1, you'll need TM 5-3695-201-12, and -12P, both dated May 59. The 36-in power-driven Little Giant Tree Feller takes TM 5-3695-205-25P (Aug 62) with

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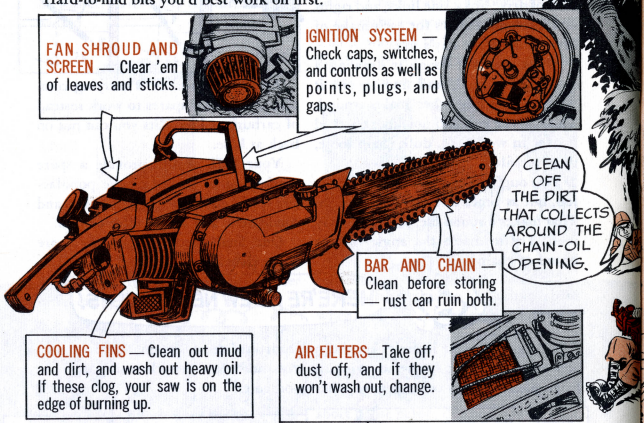

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If you still have a longing for figures, try these.They cover most of the stuff you'll need.

ITEM	KIND OR NUMBER
Gasoline	Unleaded, MIL-G-3056 or Spec Fed VV-G-76 or Automotive Combat 91A
OE 30	MIL-L-15016 or any equal non-detergent
Gasoline Can	FSN 7240-248-9620 for a 3-gal safety can
Methyl Alcohol (Methanol, Technical)	FSN 6810-198-9385 — gallon can
Sprocket, 18-in saw	Remington, mfr code 37923 Part No. A16-437 Whitehead, FSN 3695-072-5166 L-M Strunk, FSN 3695-874-6638
Chain Assy, 18-in saw	Remington, mfr code 37923 Part No. 43FT58-57 Whitehead, FSN 3695-874-6635 L-M Strunk, mfr code 05665 Part No. G311001-19
Carburetor, 18-in saw	Remington, mfr code 78480 Part No. HL159A Whitehead, FSN 2910-072-5164 L-M Strunk, FSN 2910-779-0609
Spark Plug, 18-in saw	Remington, FSN 2920-248-1616 Whitehead, FSN 2920-529-9183 L-M Strunk, FSN 2920-529-9183
Magneto Assy, 18-in saw	Remington, mfr code 79575 Part No. FWS202 Whitehead, FSN 2920-930-0332 L-M Strunk, mfr code 79575 Part No. FW2378
Condenser, 18-in saw	Remington, mfr code 79575 Part No. X11181 Whitehead, FSN 2920-859-4343 L-M Strunk, mfr code 79575 Part No. X9100
Breaker Points, 18-in saw	Remington, mfr code 79575 Part No. X11247 Whitehead, FSN 2920-859-4344 L-M Strunk, mfr code 79575 Part No. X9556
File, ½-in dia	FSN 5110-064-6899 (For Whitehead only)
File, ¼-in round, 8" lg	FSN 5110-323-4732
File Guide	FSN 5110-952-1693

END

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END

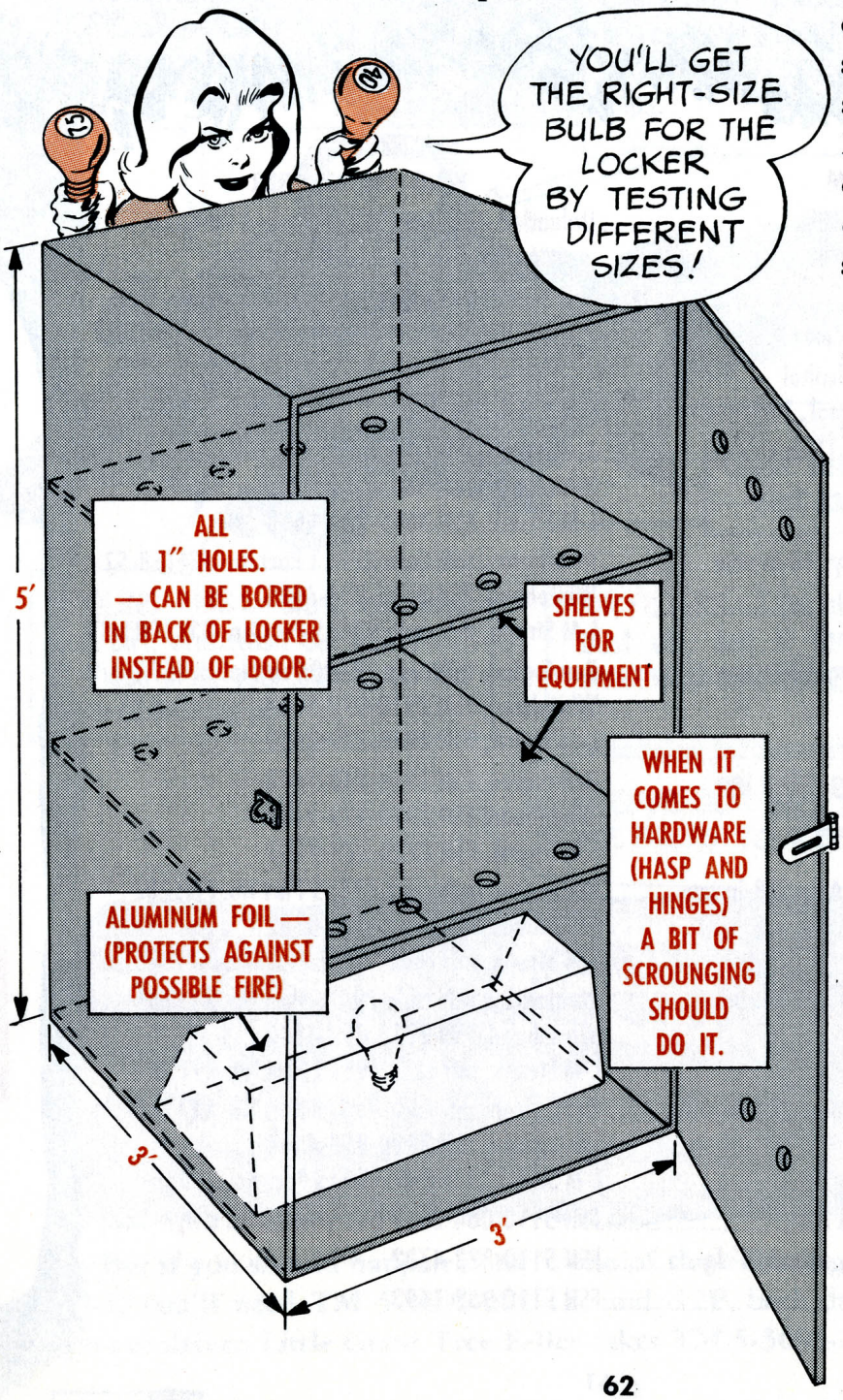
EASY-MADE DRY LOCKER . . .

SING ITS PRAISES

How about it . . . if your optical instruments, leather items, electronic gear and the like could sing, would they belt out the song, "How Dry I Am?"

If not, you can put 'em in tune with the times and drum away rust and fungi by putting together what's come to be known as a dry locker.

The locker can be a simple deal that takes care of a couple of pieces of equipment . . . or something that holds all sorts of gear. A foot locker that's seen better days works. And you can make it last by using steel plates, but then you need spare muscles at moving time.

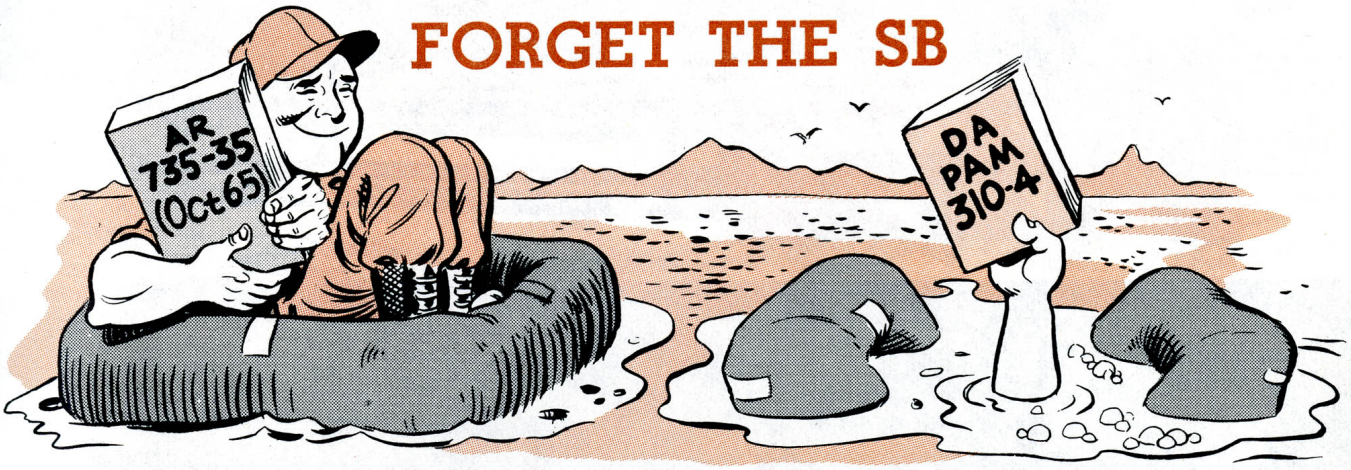


Here's a locker that'll do a good job for you.

It works this way: Air comes through the holes at the bottom . . . gets warmed as it passes the bulb . . . and then moves the dampness through the holes in the shelves and out the ones in the top.

Watch the heat of the bulb. If the locker is on the small side, the temperature inside might shoot up enough to damage the gear. You may have to go to a 25-watt bulb. And if the locker is too big for a 40-watt bulb, switch to a 60-watter or more.

FORGET THE SB



Dear Half-Mast,

Has SB 55-30-1 (19 Sep 56), which covers property records for floating equipment, been reinstated? It's listed in the current DA Pam 310-4 (May 66).

WO2 P. A.

Dear Mr. P. A.,

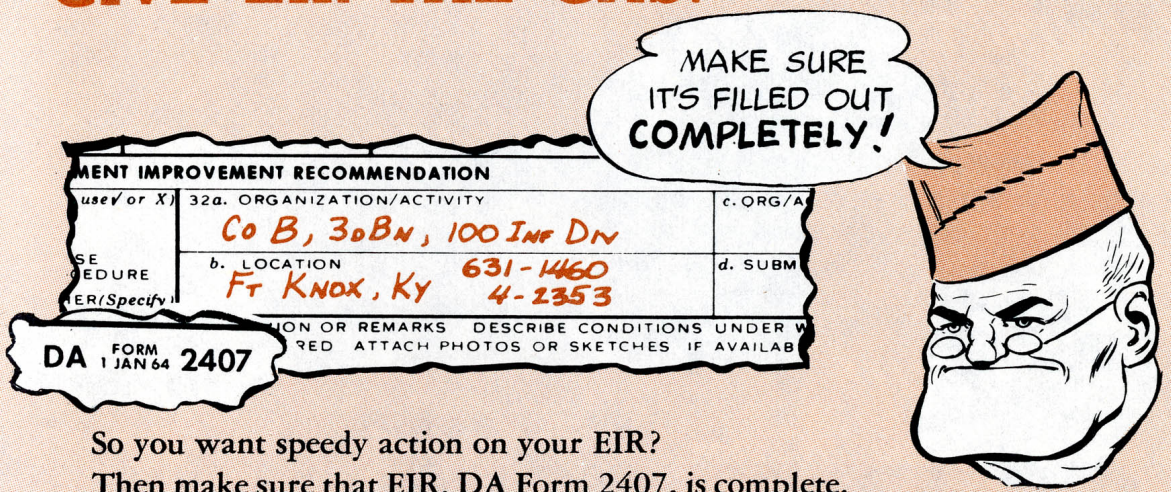
Nope. That's a goof in the index.

The SB was superseded by Ch 4 (27 Nov 63) to the old AR 735-35. Floating equipment is accounted for in the unit's property book along with all other equipment. See Sect III, AR 735-35 (Oct 65).

And, repair part SOP for floating equipment is covered by the AR's Sect VI.

Half-Mast

GIVE EIR THE GAS!



So you want speedy action on your EIR?

Then make sure that EIR, DA Form 2407, is complete.

Speed that action by saying what's wrong in full detail. And ***why***—if you have any idea—like the block 35 rules say in paras 3-7.4d(12) and 3-7.4e(3)(b) of TM 38-750. Use DA 2407-1 if you need it.

It might help, too, to add your AUTOVON or other phone number plus extension under "Location" in block 32b — or in block 35 if more space is needed. Then the NMP can check back for more details—or later results.

Connie Rodd's BRIEFS

PLL Flash

Keep an eye out for new PLL SOP in your command. New scoop on making changes and additions to the PLL, and on review periods is set up by DA TWX 822620 (ADCSLOG-MR), 7 Jul 67.

TM 38-750

You may not have got enough copies of TM 38-750 (May 67) on initial distribution. If so, order more from St. Louis Publications Center by TWX or DA Form 17. Quote Baltimore AG Bulletin No. 28 (10 Jul 67) as your authority. But don't forget your St. Louis Account Number.

M151 Drain Tube

Now you can get Battery Tray Drain Tube, FSN 2540-832-5654, if your M151 or other G838-series ¼-ton vehicle has lost its battery box drain hose. It's a new repair part for TM 9-2320-218-20P users.

M116 Rear View Mirror

If you need a rear view mirror for your M116 cargo carrier, order it as FSN 2540-840-0022. This is the number for the new mirror and not, like it says in PS 175, page 13, for the old mirror.

Solly Cholly!

Torch Pop Stopper

That "pop" you hear when somebody shuts his oxy-acetylene torch off wrong after a welding or cutting job isn't good. It blows carbon back into the pipes. But a cure is simple—just shut off torch oxygen first, then acetylene next, not t'other way around.

EIR Digest Drop-Out

Hold one, frantic mechanics! EIR Digest, TB 750-992-2 (24 Apr 67) says it's OK to use a torque wrench to back off a nut. Not so. The last sentence under the paragraph headed, Check Pre-torqued Nuts (page 3) should read: A torque wrench should **not** be used for the back-off operation.

G300A???

You're probably scratching your head over the meaning of that G300**A** business in the Armament Material section of TM 9-2300-223-20P (Jul 65) Consolidated Authorized Organizational Stockage List of Repair Parts for Tank-Automotive Materiel. Well, all it means is G300 = M114 . . . and G300**A** = M114**A1**. This "A" will probably disappear in the next revision to the TM—and G300 will then stand for all the M114 models, unless separate model numbers are shown below the G300 SNL number.

Would You Stake Your Life right now on

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Solly Cholly!

Torch Pop Stopper

That "pop" you hear when somebody shuts his oxy-acetylene torch off wrong after a welding or cutting job isn't good. It blows carbon back into the pipes. But a cure is simple—just shut off torch oxygen first, then acetylene next, not t'other way around.

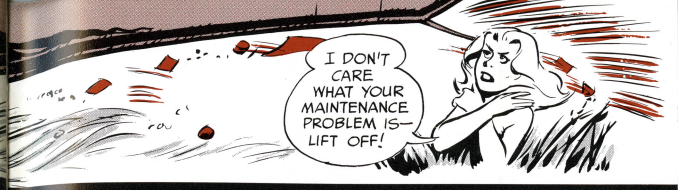
EIR Digest Drop-Out

Hold one, frantic mechanics! EIR Digest, TB 750-992-2 (24 Apr 67) says it's OK to use a torque wrench to back off a nut. Not so. The last sentence under the paragraph headed, Check Pre-torqued Nuts (page 3) should read: A torque wrench should **not** be used for the back-off operation.

G300A???

You're probably scratching your head over the meaning of that G300**A** business in the Armament Material section of TM 9-2300-223-20P (Jul 65) Consolidated Authorized Organizational Stockage List of Repair Parts for Tank-Automotive Materiel. Well, all it means is G300 = M114 . . . and G300**A** = M114**A1**. This "A" will probably disappear in the next revision to the TM—and G300 will then stand for all the M114 models, unless separate model numbers are shown below the G300 SNL number.

Would You Stake Your Life right now on the Condition of Your Equipment?



Shine On!

If you Huey Delta (UH-1D) and Chinook (CH-47) mechs are having trouble keeping those seeing eye retractable landing lights aglow, don't blindly order the entire light. Maybe all you need is a bulb. FSN 6240-557-3065 will get you one.

One Yellow Band

WP and PWP smoke cartridges are color coded like this:

Light green body with light red markings, and **1 yellow band,** which clues you to a high explosive burster.

M79 Grenadiers

Having trouble getting repair parts for your M79? Maybe you missed the news that the -20P TM was rescinded and the parts you're looking for are in Ch 1 (30 Apr 65) to TM 9-1010-205-12. Ch 2 (5 Jan 67) to the -12 TM has special scoop on handling misfires, hangfires and stuck projectiles.

New DD Form 6

Keep an eye out for new local SOP on use of AR 700-58 (Jan 67), Report of Packaging and Handling Deficiencies. The revised AR covers a new DD Form 6 (Dec 66). Info on the back of the form lists typical deficiencies the form can handle, and spells out defects it can't report.

Huey Bearing Stack-Up

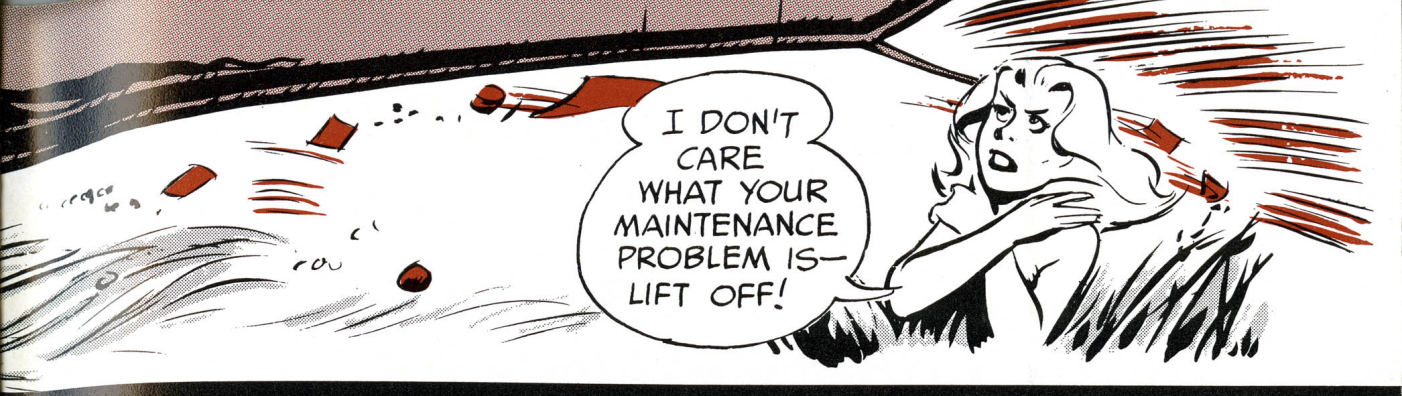
Face to face, back to back, or seal inboard—this is how your Huey (UH-1) tail-rotor pitch-change rod-bearing sets stack up. One manufacturer's installation poop is not clear . . . can lead to T/R failure (ugh!). Depending on the part numbers you have, follow the arrangement shown in the organizational maintenance pub.

Automotive Mechanics

Hold on to that Universal Joint, socket wrench, FSN 5120-269-7971. It's supposed to be in the socket wrench set, FSN 5120-081-2307, which is in your Automotive Mechanic's Tool Kit, FSN 5180-754-0641.

Get Your Decals

Any of the decals in your equipment missing or painted over? Never fear. SC 7660/90-ML (Mar 67) is here. It gives you the FSN's for a lot of those hard-to-find decals for track and wheeled vehicles, weapons, and commo equipment. It even has FSN's for individual letters in 4 different sizes so you can custom-make your own decals. It also lists packing labels, strapping diagrams and white stars in 8 different sizes. Order it with Change 1, which has the latest deletions and additions.



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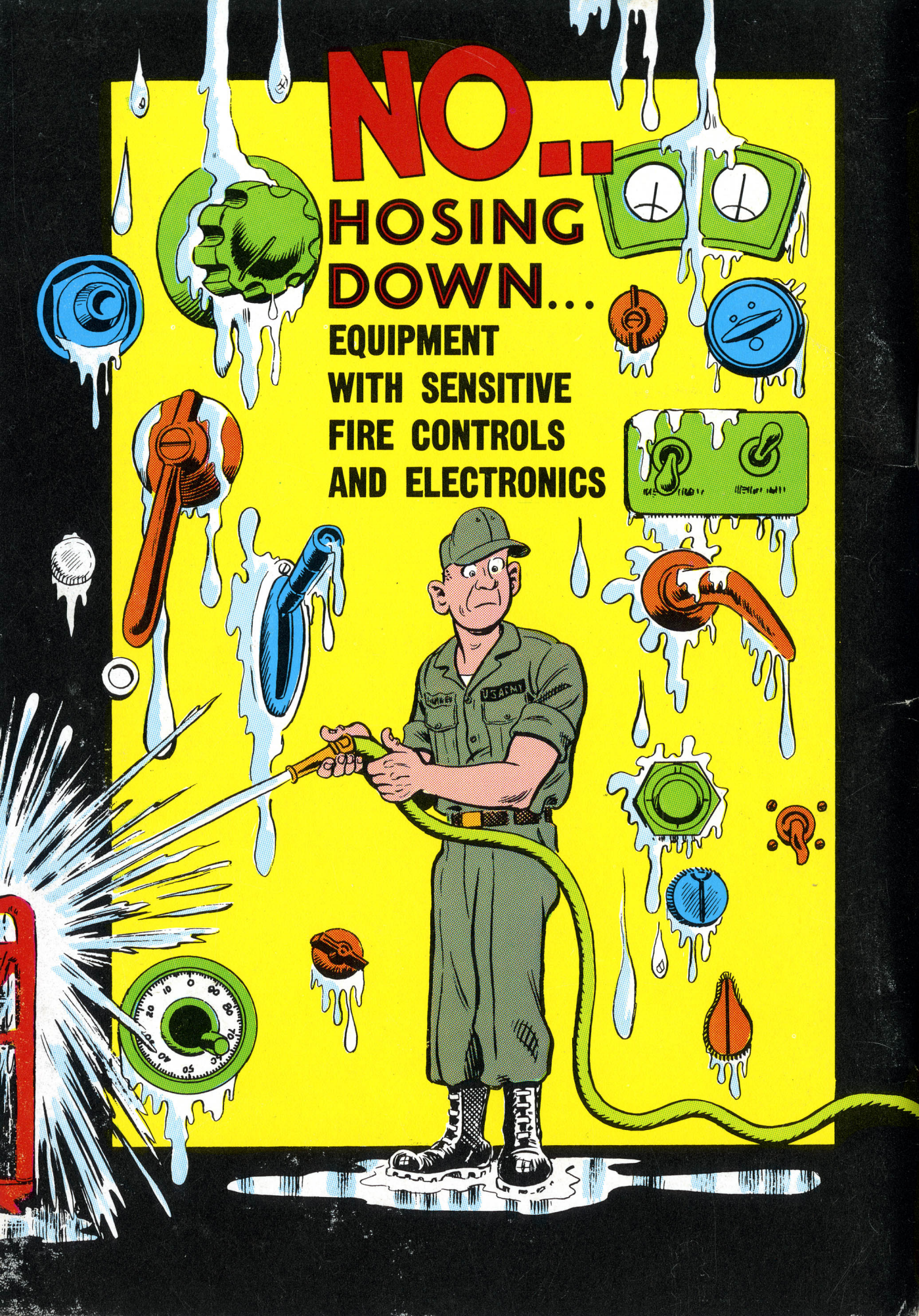
NO...
HOSING DOWN...
EQUIPMENT WITH SENSITIVE FIRE CONTROLS AND ELECTRONICS
USARMY